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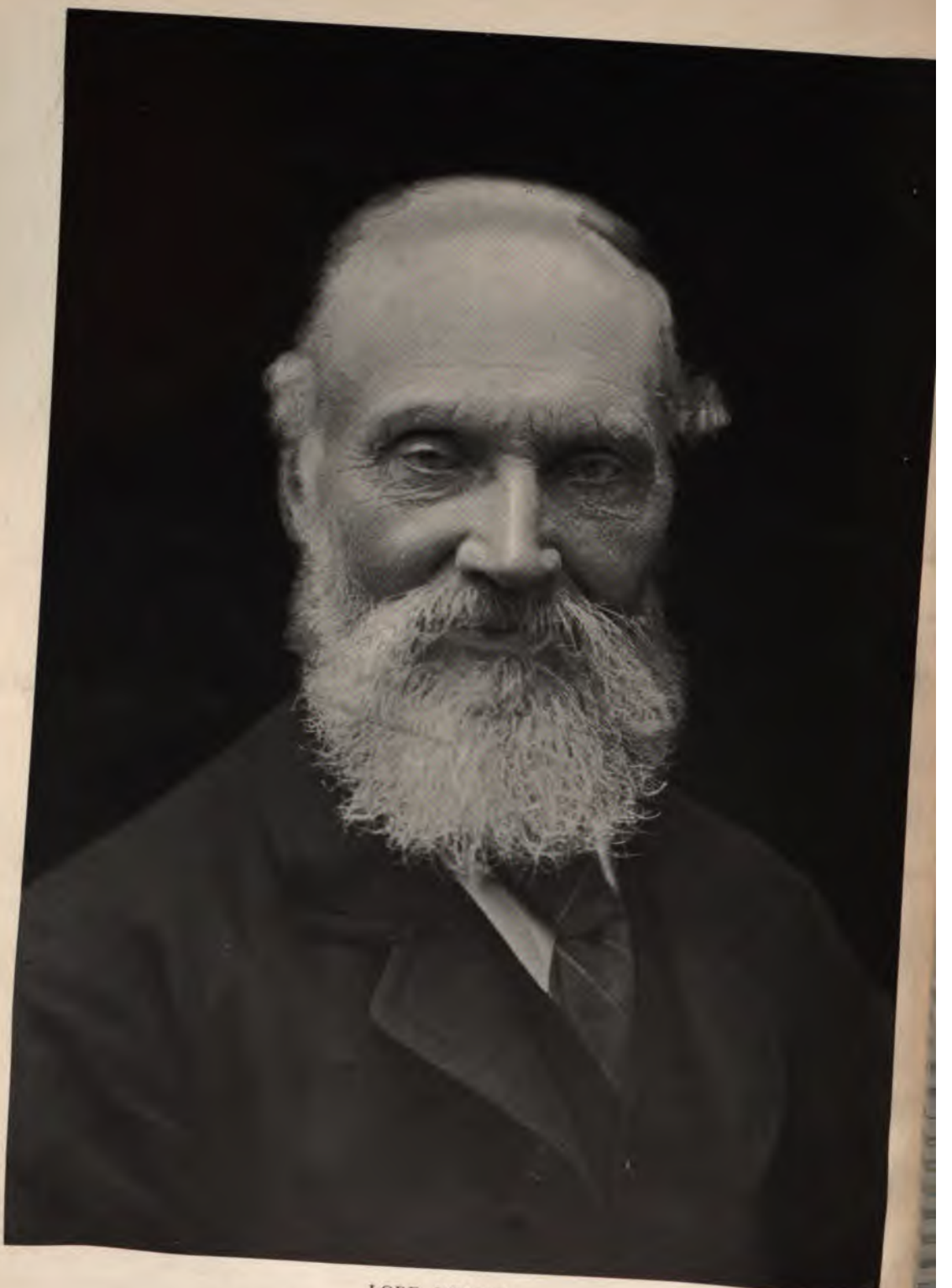

LORD KELVIN

The famous English physicist who is now on a visit to the United States

THE WORLD'S WORK

MAY, 1902

ME IV NUMBER 1

The March of Events

URING the stirring events of the last two years we have so adjusted our political thought to world-problems the approach of a Congressional cam- does not attract the preliminary atten- hat it once did. The election, it is true, months away, but nominations have made in some districts, and the candi- for nomination are everywhere mending fences.

tradition is that the party of the op- n has the advantage in the Congres- election that falls midway a Presidential It would, therefore, be in order for emocrats to win a majority in the House all. They have two subjects to make an ve campaign—the tariff and the ship- y bill. If a Tilden or a Cleveland—in words a man with an earnest moral se—were to give the cue and were to the party to confine its efforts to these bjects, it would have more than a fair to win.

popular demand for a reduction of the is the only issue upon which the party Presidency or a majority in the cent years. Men who wish the ic party well cannot too often re- this fundamental fact; and, since the ity of an excessive revenue is passed, and since the country's foreign trade has won many manufacturers to the side of tariff-reform, the issue is quite as strong now, to say the least for it, as it ever was. Free silver and "anti-imperialism"—in other words issues that are simply made to order—lost to the Democratic party the moral confidence of the country. This sums up the recent history of the party in a phrase. For that matter, the phrase could be shortened into the single word "Bryanism." But the party has as good a chance as it has had at any time these thirty years, and an even better chance, if it find good leadership and recover from the rhetorical madness of declaiming against Fate and things already accomplished.

On the other hand, the Republicans have a strong hand to play. They have an era of unprecedented prosperity for which they will claim credit, and in part justly. Under the Republican administration of Mr. McKinley, of which Mr. Roosevelt's administration is a continuance without change of policy, the United States has risen to a more commanding position than we ever before held; and the vexing "colonial" problems have been solved or put on the road to solution. In this brief time we have come to play a large part in the world, and we have played it successfully. The patriotic feeling of the people

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has been broadened and deepened; and the Republican party, for the second time in its history, has identified itself in the popular mind with a great patriotic impulse. More than this,—it has identified itself with the broadening of our boundaries, of our influence, and of our trade. These are such large facts that they are likely to cover many sins both of omission and of commission.

The Republicans, too, have very much abler management than the Democrats. And this is an increasingly important matter in every campaign. If, for instance, the Democratic leaders are so short-sighted (as they give promise of being) as to raise a cry against "Imperialism," they will give the Republican leaders the easy task of declaiming on our unprecedented prosperity. It will be a campaign of general talk on the most general propositions. Prosperity will boast: Anti-Imperialism will wail; and the man does not live who can get one very clear political thought out of it all. But in a shouting match between Prosperity and Anti-Imperialism, Prosperity will be likely to win; for it is sleeker, better fed, more cheerful, and in better voice; and, after all, it is a more comfortable creature to live with.

The most interesting thing about the campaign to the thoughtful students of events will be the evidence it will give of the advance of our political class. Even since the last Congressional campaign, almost every other class of active men has moved forward in its thought and methods. The whole industrial and commercial world has extended its activities and its horizon. The world of finance has been greatly broadened. The political thought of the people has suffered a great change But have the active politicians kept pace with it?

TARIFF REFORM AS A DEMOCRATIC ISSUE

THE truth is, an earnest campaign for the reduction of the tariff would probably bring together for its support a stronger public opinion than it brought in any preceding campaign. The body of Democratic voters could be counted on to begin with. Although there has been a very considerable growth of protectionist sentiment in the South, it is doubtful if it has become strong enough to change the vote of any State. In addition to the Democratic sentiment there has been an increasing opinion in certain Republican circles that the tariff ought to be reduced. There are two reasons for dissatisfaction in the protectionist camp.

(1). Many manufacturers have built up and many more are building up an export trade. They desire favorable markets in other countries. Favorable markets in some other countries imply such trade treaties as were contemplated in the recently deceased movement for reciprocity, which came to its death at the hands of the protectionists.

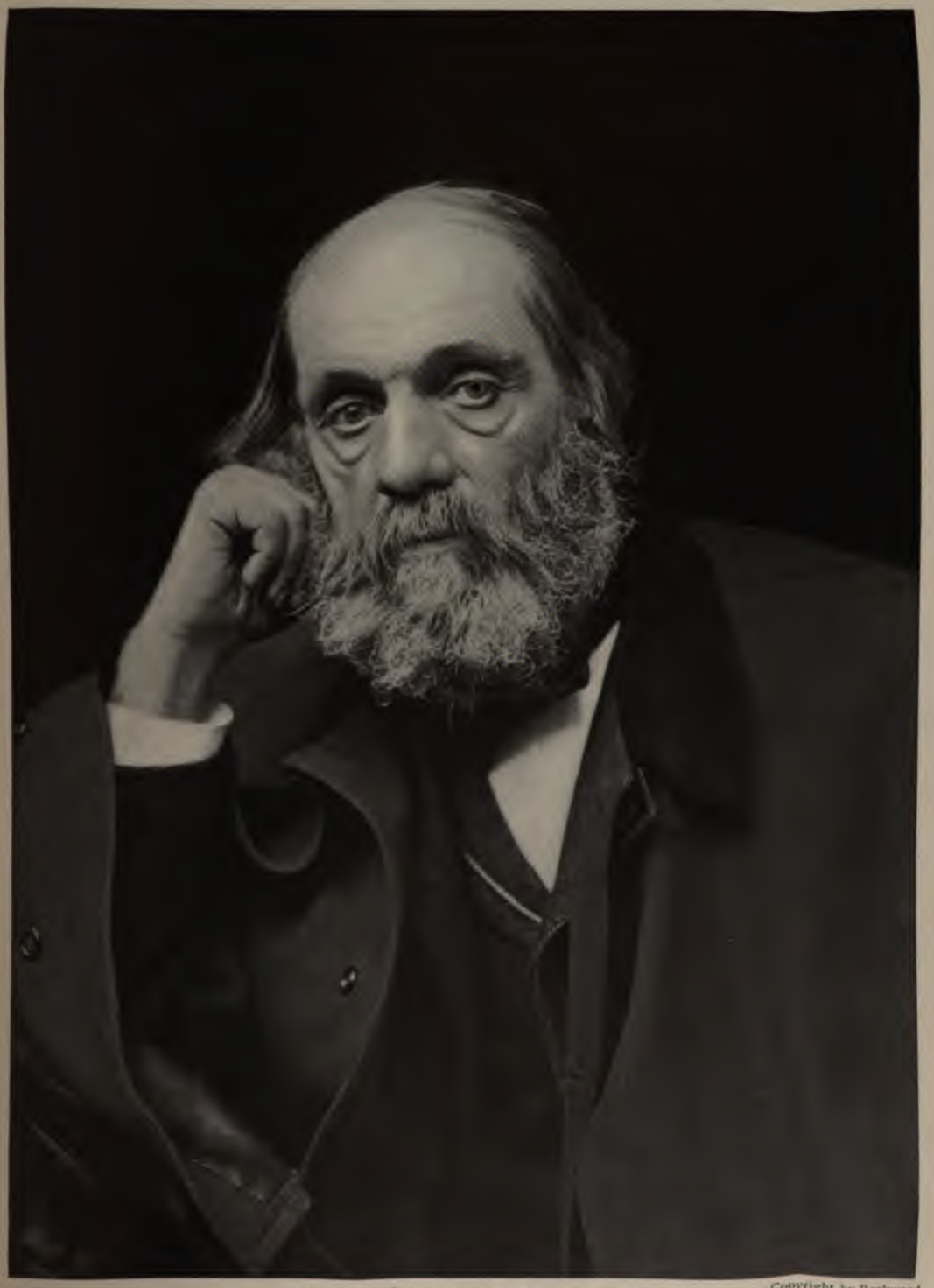
(2). There is a considerable body of Republican opinion which has found expression by Representative Babcock, who would put on the free list the raw materials used by any trust—especially the United States Steel Corporation.

And the protectionists have offended the tariff-reform sentiment of the country in many ways during this session of Congress. They buried reciprocity; they have been ungenerous and hesitating in dealing with Cuba; they passed the bill without discussion to repeal *all* the war-taxes, because these were taxes which gave protection to nobody, and they could the more easily retain the protective duties; and in the Senate they passed the ship-subsidy bill which is an extension of the protective principle. By these actions the majority has given the minority party better campaign material than it has had for many years.

THE PRESIDENT AND THE "GREAT INTERESTS"

THE subject that lies, in every man's mind, beyond the approaching Congressional campaign is the next Presidential contest. So many important things may happen in two years that it is little less than silly to speculate on uncertain events at so great a distance. Yet so far as present forces are concerned they point both to the nomination of Mr. Roosevelt and to his election. He continues to be a commanding and an attractive figure, and he is the logical candidate of his party—if his party put its best tendencies in the lead. In fact, to nominate any other man now in sight would be, by comparison, a confession of retrogression.

For Mr. Roosevelt stands for the best tendencies of his party—for reciprocity, for instance, against stupidity; for justice and



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DR. EDWARD EVERETT HALE

Whose eightieth birthday was celebrated at Boston in April

THE LATE CECIL JOHN RHODES

Portrait reprinted from THE WORLD'S WORK for February, 1901, when it appeared in connection with a personal account of Mr. Rhodes by E. S. Grogan, the African explorer

humanity to Cuba as against the very madness of special protection; for civil service reform; for merit and efficiency in the army and the navy as against favoritism and bureaucracy; for the enforcement of the laws (the Sherman anti-trust law, for instance); and most of all for vigor and courage in the public service.

The President gives promise of winning great popularity on his own account by reason of the very party difficulties that he is encountering. For there is a likelihood of a struggle sooner or later between him and the great corporate interests that have found the atmosphere of the Senate and of the Republican party in general an acquiescent and balmy air. Deep-seated in Mr. Roosevelt's mind is the feeling that fair play is as desirable when Great Interests come into the game as when the players are little men and the stakes are small. He insisted while he was Governor of New York that public franchises should not escape taxation. Certain Great Interests preferred that he should not be Governor again. Therefore by an unexpected turn of fate he became President. He still keeps the feeling that Great Interests should have no favors that plain men may not have. He said this in one form in an address at Minneapolis, that has been much quoted. He said it in another form when he wrote in his message a noteworthy paragraph about the desirability of publicity about corporations that do an interstate business; and he ordered suit to be brought to test the legality of the Northern Securities Company under the anti-trust law.

Now in all this very clearly thought-out philosophy of fair play (for that is what it is) Mr. Roosevelt has never shown a shadow of hostility to corporations *per se* great or small, nor to industrial organization, nor to the massing of capital. But he has thrown the force of a straightforward and courageous personality directly against the natural tendency of Great Interests to have their own way simply because they are Great Interests.

Difficult as it is to formulate, every thoughtful man knows that the general tendency of great corporations is to secure by the mere pressure of their power, leaving out of consideration all cases of criminal intent, advantages that an ideal democracy must deny them. A giant, unless he be an unnaturally gentle giant, gets a larger share of the sidewalk than he is fairly entitled to, simply because he is a giant. Every thoughtful man knows too—or feels even if he cannot formulate his feeling—that as between the two great political parties, the Great Interests have been more at home in the Republican household. There is a basis of just complaint in every popular protest that the blindly led masses have made against the growth of special privilege in this era of gigantic industrialism. Such protests have seldom been logically, and they have often been dishonestly, made. But the large fact stands out that there is a danger here to our purely democratic development.

Most public men in authority have purposely or unconsciously acquiesced in the gradual push of the Great Interests into places of special privilege, because they have not seen a clear opportunity to stop them; for the push is very gradual. Some public men, of whom the late Governor Altgeld was a conspicuous example, have declared violent hostility to them on general principles, and such men would, if they could, hinder the logical development of great industry.

Now, apart from engaging qualities which make him a good leader (witness his dextrous management of the Cuban case in Congress), and which make him an admirable Executive (witness his management of Germany in South America, whereby a prince of the royal Prussian house came to the United States on a friendly visit instead of German gunboats going to Venezuela on a hostile errand)—apart from his qualities as Executive and party leader, Mr. Roosevelt has a profound love of fair play, in great matters and in small, which gives promise of a struggle for mastery between him and the Great Interests which have found in his party a deferential hospitality. He, too, is hospitable, as he ought to be; but the bigness of the giant does not, in Mr. Roosevelt's mind, entitle him to more than a giant's share of room.

MR. ROOSEVELT AS A PARTY LEADER

THE President instinctively and by conviction stands for fair play, and in every executive post that he has held he has fearlessly executed laws that easy-going executives had allowed to remain as a dead letter. On the other hand, the virtues of the old Republican managers are negative. The outcome of

Yours very truly
Seymour Eaton LIBRARIAN OF THE BOOK LOVERS' LIBRARY

ference of temperament will not only the personal popularity of the Presi- it will greatly strengthen the party. danger of the party, when it appeals ncience of the people, is that it will d as the party of special privileges. tism of the people and their pro- ood bind them to the party, as well ractical sense and their fondness of ngs brought to pass. The eternal critic and of the complainer which cratic party has too often taken in rs is tiresome to the active Ameri- rament. But the quality that may reckoned on in the American people ger force than their allegiance to is their love of fair play.

s likely, then, to come to pass that eramental difference between Mr. and the old managers of his party neficiaries of special privileges will he party under his leadership the one at it stands most in need of. And ty do not gracefully accept his leader- uch the worse for it.

ERAL VIEW OF THIS SESSION OF CONGRESS

public that pays intelligent attention national affairs has not forgotten a Congress assembled the most im- ubjects before it were:

settlement of the Cuban question, our withdrawal from the island and reatment of the economic difficulties ople;

isfactory legislation looking towards ruction of an isthmian canal;

learly defined Philippine policy;

reduction of the surplus; and

making of reciprocity trade treaties.

subjects of large importance that were blic mind were the ship-subsidy bill, hanges in our monetary system, the estriction of Southern representation ss, because of the disfranchisement acks, and possibly a scheme of gov- aid to irrigation. And behind most plans lurked the constant danger—or a general tariff discussion.

ss is yet hardly in clear sight of ad- t, and much more work is always ompleted during the last month than e first three or four months of any session. But, if the programme of the early days of the session is to be carried out even to a reasonable extent, great haste must be made. Cuban independence has been granted, and this we have done as creditably as we seem likely to do grudgingly our economic duty to the Cubans; the isthmian canal project seems to be in well-nigh hopeless confusion, but there is yet time to set this straight; a clearly defined Philippine policy has been reported, which includes incidental though important legislation that will permit the development of the islands; the bill has been passed cutting off radically all the war revenue taxes, thus preventing embarrassing discussion of the tariff; and reciprocity treaties have apparently been abandoned—a bad piece of work for the party of the majority. The ship-subsidy bill has passed the Senate, but seems likely to fail in the House; a far-reaching and generally excellent measure has been introduced looking towards monetary reform, which is hardly expected to pass at this session; the restriction of Southern representation in the House is not likely to be undertaken; and aid to irrigation will go over among the perpetual tasks that every Congress inherits from its predecessor.

There does not seem likely to be a large body of positive achievement to the credit of this session—except the freedom of Cuba—unless it make itself memorable and historic by enacting a satisfactory isthmian canal bill.

THE PASSAGE OF THE SHIP SUBSIDY BILL BY THE SENATE

IT is the plain truth to say that the large and complex subject of building up our merchant marine is a more difficult task than present American statesmanship is equal to. Fortunately in the meantime our great captains of trade and of transportation and our great ship-builders are attacking the problem successfully. But on the political side it is more difficult than on its practical side. It involves marine insurance (which is yet controlled in London for most ships that sail all seas); it involves the training of more seamen, for even steamships require trained men, and sturdy American workingmen have hitherto found more congenial and profitable labor; it involves the repeal or the readjustment of antiquated and complex shipping and registry laws; it involves the employment of

American capital in an industry that has been less profitable than the development of our internal traffic and our manufactures; it involves the building up of direct foreign trade with countries to which many American wares have been shipped indirectly and from which our imports would be greater if we had more favorable tariffs and more direct ships—it involves, therefore, reciprocity treaties and the tariff. There is no other large and vital subject that is so complicated and difficult.

The ship-subsidy bill which Senators Hanna and Frye brought forward during the last session of Congress failed of enactment because public opinion asserted itself against it in the most earnest tone. Now a modified ship-subsidy bill has been passed by the Senate, with changes that were meant to obviate some of the objections that the bill of last year encountered. But the principle is the same. The present bill provides in brief (for it is a very complicated measure) for the payment of a postal subsidy according to tonnage and speed and of a cargo subsidy according to tonnage; and it permits the expenditure in these subsidies of about nine millions of dollars a year for twenty years. No subsidy shall be paid to foreign-built vessels under any circumstances.

It was passed in the Senate by a vote of forty-two to thirty-one. Every Democrat voted against it except Senator McLaurin, of South Carolina, who is hardly regarded as a Democrat; and six Republican Senators voted against it, namely, the Senators from Iowa, Vermont and Wisconsin. The Democratic opposition is unanimous. The Republican support was not unanimous, for the six opposing Senators are men of personal importance and the Republican States that they represent are of political importance, especially Wisconsin and Iowa. It is expected that the bill will fail to pass the House; but no certain prediction can be made when this is written.

It is in keeping with the protectionist principle, but it is an extension of protection beyond precedent. The Democratic sentiment of the country may be considered irreconcilably and unanimously opposed to it; and, if the Republican and independent newspapers reflect Republican opinion, Republican sentiment is seriously divided. Many influential Republican journals vigorously oppose it, especially those in the Middle and the Western States, such as the Chicago *Tribune* and the *Inter-Ocean*, and such Eastern Republican or independent papers as the New York *Times*, the Philadelphia *Ledger* and the Baltimore *American*. Most influential Republican and independent journals seem either afraid of it or are directly opposed to it.

Politically, therefore, the subsidy bill is a very dangerous measure. Commercially and economically every man interprets it according to his political theory. It would stimulate American ship-building, which seems to need no stimulus, and it would put more American-built and American-owned ships in the service of our foreign trade; and the shipping once got by them would probably be kept. But the price paid for this gain, both in money and in principle, is too great, as almost all independent economists regard it. If the subject were unselfishly considered by large-minded men who know both economics and practical commerce, their opinion would probably be that such a measure is of doubtful practical value and under present conditions unnecessary. In time American commerce—with unrestricting laws—will take care of itself.

THE THREAT TO OUR HONOR AND TO CUBAN INDEPENDENCE

THE Cuban Republic will begin its independent existence on May 20. Then, according to the agreements already essentially made between the two countries, the civil control of the island will pass to its duly elected officers, and the United States military forces will be withdrawn, except a few who will do garrison duty as a safeguard against any possible disorder. The terms of the Platt amendment, which have been several times explained in these pages, will then have been complied with and the new republic will become one of the family of nations. We shall send a minister and consuls to represent us there, and we shall be able to point to Cuban independence (under our protection against foreign indebtedness and against internal disorder) as an accomplished fact.

That is to say, we shall be able to do so unless the over-reaching practitioners and beneficiaries of extreme protection make wreck of Cuba's hopes and of our own moral obligation to the Cubans; for an economic

obligation of this nature is a moral obligation of the strongest sort. The reduction of twenty per cent. of the duties on Cuban products imported into the United States, with which the dominant party in the House has so long been struggling, is insufficient to prevent practical bankruptcy and want. If the Cubans cannot have our market for their sugar and tobacco under conditions that will enable them to live, then they will not be able to maintain a real independence. Thus the misguided ultra-protectionists threaten our national honor and threaten Cuban independence—threaten the consummation of the high purpose for which we went to war with Spain. This is the cold, hard truth of the matter.

SPEAKING OF PENSIONS—

MR. EVANS, the Commissioner of Pensions has carried out a long-formed purpose and resigned after five years' service. There is both positive and negative evidence that he has administered that difficult office well. Negative evidence has been given by the pension agents and by professional spokesmen for pensioners. They have not liked him—much to his credit.

The Pension Office never comes into the public mind without arousing an indignant pity. The proper pensioner is not only cheerfully maintained by the public: he is an honored person; or he would be if he were more easily distinguishable from the improper pensioner. There is no other part of our governmental machinery that reveals so pathetically the weakness of human nature and of civic character. The young women that have married dying veterans—for pensions; the sound men that have magnified trifling ailments—for pensions; the scoundrels that have taken the names of dead men—for pensions; the plunderers who have made it a business to promote mendicancy—for a percentage of pensions; the blatant pension-politician who cries out "treason" against every public officer who enforces the law—these have for nearly forty years brought a deeper disgrace on American character than any other part of our population. The worst of it is, there is no remedy. The Government suffered itself to become their victim during the years when the cry of "patriotism" covered up sins and crimes of many sorts; and unborn generations will continue to pay the bills. There are villages where an agent of the Pension Office suspected of an errand of investigation is in danger of physical injury; for mulcting the Government is considered a legitimate industry.

Mr. Evans enforced the law; and it is a sad comment to make on any public office that if the man who holds it enforces the law his life becomes a burden.

The President is as resolute an enemy of an easy-going administration of it as he is the generous-hearted admirer of every honorable pensioner. The harm to the National character—and we have this for consolation—has already been done. We have only to pay the bills and—to talk of other subjects.

PLAYING SHUTTLECOCK WITH CANAL ROUTES

IT will be recalled that in its first report the Isthmian Canal Commission recommended the Nicaraguan route because, at the price set by the French company on the unfinished Panama Canal, the Nicaraguan route was the cheaper. Thereupon the French company set a very much lower price on the Panama Canal, and the Canal Commission made a supplementary report in favor of the Panama route. Just when it seemed likely that we should choose this route, the Columbian Government interposed objection — rather it declared that the French company has not a concession from it that it can sell. The House, it will be recalled, has already passed the Hepburn Bill which authorizes the Secretary of War to proceed with the construction of a canal by the Nicaraguan route. If any bill be passed by Congress at this session, it seems likely that it will be the Hepburn Bill, with such changes as may be made in a committee of conference. Senator Spooner has offered an amendment which would give the President power to decide between the two routes—an amendment that is likely to fail of adoption.

Since the repeal of all the war taxes will reduce the revenue by about 70 millions, and the River and Harbor bill will absorb about 60 millions, a very pertinent question is: Where will the money come from to cut the canal if the Hepburn Bill become a law? Of course it can be procured, but hardly out of the current revenues of the Government, in spite of the great reduction in army and navy expenses—especially if the ship-subsidy bill should become a law.

METHODS OF ELECTING SENATORS

IT seems likely, if any amendment to the Federal Constitution can be made, that an amendment may be adopted substituting the election of United States Senators by popular vote for election by the vote of the State Legislatures. A resolution in favor of such an amendment has been adopted unanimously in the House of Representatives. It had been previously adopted several times; but it has, we believe, never come to a vote in the Senate, and there is a likelihood that it now may.

There has been an animated, but not very enlightening, Senatorial discussion of the subject. Senator Hoar has again, as he had many times before, vigorously opposed popular election, because he thinks that it will have a tendency to break down one of the safeguards of the government—a tendency even to destroy the equal representation of the States in the Senate. It so happens that the equal representation of the States in the Senate is secured by the Constitution in a way that nothing else is secured; for "no State" (so the Constitution runs) "without its consent shall be deprived of its equal suffrage in the Senate." No change of the method whereby Senators are elected could, therefore, possibly affect the Senatorial representation of any State.

Public sentiment in favor of the popular instead of the legislative election of Senators has steadily grown stronger, because of the ease with which rich men and powerful Interests have purchased Legislatures by cash or by undue influence; and there has been provocation for demanding a safeguard against such a possibility. It often happens that a very small number of votes in a Legislature need to be changed by corrupt or improper methods to ensure the election of an unworthy man; and it seems cheaper and easier for such a candidate to buy or to win a handful of members, than it is to carry a popular election, or even to carry a convention or a State primary. Yet it is doubtful whether the Governors of the States are purer or abler men than the Senators. But public opinion has very definitely spoken in favor of the change; for quite two-thirds of the States have petitioned Congress to submit such an amendment to the Constitution.

Many men who favor the proposed change oppose the amendment, with a show of reason, as unnecessary; for the dominant party in any State can at any time practically elect Senators by a popular vote; and they are now so chosen in several States. At the election of members of the Legislature the voters indicate which Senatorial candidate they prefer, and the members of the Legislature are elected on a pledge to execute the expressed wish of the majority.

A change of method may be well; but it is easy to stake both too great fear and too great hope on a mere change of method; for no method will insure the election of the best men nor even the defeat of the worst men unless the civic virtue of the community assert itself. There is no mechanical means of keeping politics clean and high. If the effort that is spent in devising and changing and discussing the mere machinery of public life were spent in building up a clean and high civic feeling among the busy men who neglect their political duties, the machinery would take care of itself. By either method every State will continue to get the kind of Senators that it deserves.

THE OLD DIFFICULTY OF PLAYING THE HERO

THE most pathetic aspect of life is presented when a man of successful achievement at last reaches a plane of prominence that disturbs his poise; for the business of being a hero is a great deal more difficult than the doing of heroic deeds. General Miles won a secure place in our frontier military history, not only as a brave soldier, but as a commander of good judgment. He was fitted by nature for action. But, when he came to the general command of the army, and in a sense fell heir to the popular and social distinctions that had been showered upon his predecessors—when, in a word, his duties ceased to be active and his position became a passive and spectacular one—he soon began to display a childish and vain spirit that has at last brought his humiliation. The publication of General Miles's correspondence with the Secretary of War brought its own rebuke. His request to be sent to the Philippines in a way that would be a direct insult to the officers in command there was refused; and General Miles thereupon became so irritated and discourteous as to make official coöperation with him as difficult as it was useless. His irritated comment on the Army Reform bill,

which he vainly construed as a personal attack on him, displayed a temper that is more than unfortunate. The Army bill is a measure that has met the approval of every competent student and critic of our military organization; and it is an important part of the far-reaching and practical reforms that have made Secretary Root's administration the most notable of recent times. It becomes the public to recall with gratitude and admiration the great service that General Miles has rendered the country, and to forget the rest. But it becomes the public in the meantime clearly to understand that Secretary Root and the President have done only their plain and necessary duty.

THE LAST GREAT ENGLISH ADVENTURER

CECIL RHODES, who died at the early age of forty-nine, was one of the great figures of contemporary life; and, like all other great men, he has served as a text for the moralists. But, after all the morals are drawn from his career and the preachers have become silent, the fact stands out that he was a great man; and there is little illumination in the often-repeated reflection that he was "a typical man of his time," for so most great men have been. The more or less chance remark that he made—"What is the use of large plans unless you have the money to carry them out?"—has been taken as the key to his character; and the resolute quality of the man has been exaggerated in the obituary literature about him into a ruthless nature such as he hardly possessed.

He went as a youth to South Africa to escape consumption. By what seems an accident he found himself at Kimberley just in time to take advantage of the newly discovered diamond fields. His constructive mind found opportunity to build a fortune. But if he had not, as it were, stumbled upon such a chance, it is conceivable that this same constructive quality might have found exercise in some other way and with other tools than wealth; for he cared nothing for fortune except as a tool. When he had acquired great wealth and great economic power, the task that dominated him was the development of South Africa and then of Larger Africa as a part of the British Empire. To this he bent his whole energies. The large vision of the man enabled him to see far into the future; and his aim was to make sure that when the great undeveloped continent should become the home of civilization it should be English civilization. It is this patriotic cue—this race cue—that gives the true understanding of his character. He wished to do the work of an empire-builder.

The builders of empires have, sometimes by necessity and often by temperament, been men who were not squeamish about methods, especially methods of overcoming temporary difficulties. They subordinate the present to the future, the smaller work to the larger; and they ride rough-shod where gentler men with smaller plans go at a more considerate pace. Their contemporaries have just reason for moralizing and for complaint. But this type of man is, after all, the type that changes the map of the world and that often puts posterity under the greatest obligations to him.

The one serious mistake made by Mr. Rhodes was his misjudgment of the Boers—a misjudgment that the English Government accepted. But the great service that he rendered, which enormously outweighs all his mistakes, was in laying the secure foundations of English control over a large area of Africa. He so emphasized Africa as a desirable part of the British Empire as to turn his wish into history.

The personal characteristics of the man are worthy of study. The poor and somewhat weakly son of a village clergyman, with no equipment but that indomitable spirit which a long succession of great Englishmen have shown as the sufficient equipment for the mastery of the world, he kept before him the necessity of English rule as the first law of civilization. But he never outgrew the traditional and even the sentimental inheritance of his early village period. He cut a somewhat awkward figure on every plane except the plane of large action and quick decision. He kept his simple tastes and habits. He never even learned to dress. There was an unlordliness about him and a certain childishness that gave no hint of his power as a man of action. Those who knew him best say that it was difficult to believe him a great man except when you looked at the map of Africa. His career had a larger effect on the English imagination because of the distance from London of his place of activity. He was the great and

successful adventurer of his generation, to whose achievements distance lent the old enchantment; and he belongs in that long line of great English adventurers whose work has made the modern world what it is.

THE EMPIRE-BUILDER'S REMARKABLE WILL

MR. RHODES'S will gave the world a clearer idea of the man than any revelation that he made of himself during his lifetime, especially his bequest of liberal scholarships at Oxford (said to be as much as $1,500 a year each), to be given to selected young men from the British colonies, from every State and Territory in the United States and from Germany. His conviction was that "a good understanding between England, Germany and the United States will secure the peace of the world, and educational relations form the strongest tie."

Along with this must be read Mr. Rhodes's method whereby he wished the young men to be chosen who should hold these scholarships. In selecting them he wished "literary and scholastic attainments" to count for four-tenths in their rating; "a love for and success in manly outdoor sports" for one-tenth; "qualities of manhood such as truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness and fellowship," to count for three-tenths; "exhibition of moral force of character and instincts to lead and to take interest in" his fellows, for two-tenths. Now there may be a better way of rating young men than this; but, if there be, it is not a part of popular knowledge. It is both shrewd and accurate, and it is an advance over the too prevalent method of judging youth for academic distinction solely on a record of scholarship.

From whatever point of view this remarkable will be studied, it shows great breadth and common sense. It is the work of a very great man.

In other words, Mr. Rhodes saw clearly that the great fact of the modern world was the leadership of the English, and his wish was for the unification of the English in every land—not a definite political union (which as democratic institutions develop more and more becomes a matter of detail and a matter of little importance, even if it were practicable)—but a world-encompassing large unity of purpose to spread and to keep English rule, English thought, English ways. And this was his method of doing it—to keep at one of the great English universities a succession of selected youth who show vigorous physical and moral and intellectual qualities.

Now this large aim, this conception of the capacity, the obligation and the duty of our race, is the same large aim that has in some form filled the mind of every great constructive English-speaking man from King Alfred's time to our own. The far-reaching quality of our institutions, the accumulation century after century of our noble literature, "the projected efficiency," to use Mr. Kidd's phrase, of modern life under English leadership—these great forces have made modern life what it is, and they determine the future. Any man who has profitably read history, and who understands wherein the epoch in which we live differs from every preceding epoch, recognizes the part that English civilization plays and must play for an indefinite time. No system of politics, nor of trade, nor of thought, nor of education, no literature and no art has permanent worth for us that does not imply or express or further this necessary world-domination; for no other politics or thought or art really reveals the character of the race or interprets the forces of our time.

The emphasis of the fact that English-speaking men in every country have the same dominant traits, and have a high obligation to spread and to strengthen their civilization—this is the great service that Mr. Rhodes did by his will; and it is one of the greatest and most direct services to civilization that any man has done in our generation. Whether the plan will work out as he hoped—that is to say, whether the residence of youth from many quarters of the globe at Oxford will directly bring such definite results as he had in mind—the future only can tell. But the emphasis that the plan puts on this large and true conception of modern life is itself a new force that will overcome much reactionary opinion, especially since much reactionary opinion is found in university circles.

THE WAGON AS THE BRAKE REGARDS IT

THE most interesting thing about contemporary tendencies is the struggle that goes on between the larger world of expanding activity and the smaller world of con-

servative objection. Mr. Rhodes's career and will and the criticism that they have provoked illustrate this difference on a large scale—on a world-wide scale in fact. But we have the same divergence of opinion and temperament shown in smaller measurement by our conduct in the Philippine Islands. The larger and long-range view is that we have an obligation to civilization that we cannot shirk. The conservative view is that we should do nothing to disturb the plans of an adventurer who struggled to set up a dictatorship—in short, that we should in no way interfere with other people. One view is that we have large duties to do as the builders and guardians of modern civilization; the other is that we have no right to interfere with anybody's plans, and no obligations outside our old parish.

It is by the conflict of these two great tendencies that civilization advances at a rate that is not too fast for safety and not too slow for substantial progress. The non-interference doctrine of excessive humanitarian tendencies, which is the doctrine of inactivity, acts as a brake. It contributes nothing positive to the world. But the service that a brake does in checking speed is useful on occasions—if only the brake did not have a way of creaking its opinion that it is the whole wagon, and that wheels, load, horses, driver and everything else are impudent makers of labor for it. There never was a brake that did not get the impression that it saves the whole wagon-train, and that it, therefore, has all the moral virtues. "I am the Whole Thing," it says, "and if the wheels did not move I could lead a life without friction."

HOPE OF PEACE IN SOUTH AFRICA

WEEK by week since the capture and release of Lord Methuen by the Boer General De La Rey, and since the Boer leaders were given safe conduct by the English to confer with one another, the world has been eagerly waiting to hear of the end of the war in South Africa; and such a hope is entertained when this is written. General De La Rey's daring exploit and his generous conduct and Lord Methuen's inefficiency (for so his capture is interpreted) have given the Boers an opportunity to end the war with the military respect of the world, and the English an occasion to be generous in their terms. Two things seems certain. For economic reasons the English are obliged to win at last; yet for military and geographical reasons the Boers seem able to continue the war so long a time that anything less than the resources of the British Empire would be exhausted.

RUSSIA AND FRANCE AGAINST ENGLAND AND JAPAN

THE publication of the English-Japanese treaty of alliance for five years to insure the territorial integrity of Korea and China, and the open door to trade, was regarded at every capital in the world as an anti-Russian compact. It was, therefore, in good diplomatic fashion given out at St. Petersburg that the treaty met Russia's approval, and there soon followed an official Russian-French declaration, that these allied Governments were "wholly pleased," that the English-Japanese alliance will maintain the policy of the open door in China and Korea. Then follows a declaration of a reservation of their rights to take measures to defend their interests if disorders in China should disrupt the Empire.

The declarations of the dual alliance are so general and inoffensive that they need not have been made except for what is said between the lines. Nor is anything said between the lines except that Russia reminds the world that in case of trouble it will have France on its side; and if war should disturb the whole Asiatic *status quo*, French China with its coaling stations would be of value to Russia.

The lovers of alarm have already foreseen war—sooner or later—between Russia and Japan. But recent wars have been so discouraging even to the strongest nations, that there is good reason to hope that peace has a stronger hold on the wishes even of Russia than it ever had before.

The pressure of the Great Powers seems to have caused Russia definitely to agree to give up Manchuria—at some future period. But there is a degree of tension regarding Chinese affairs that is greater than it has been at any time since the siege of the legations. Our own Government, which is the only one that is known to have no territorial ambition, is acting as peace-keeper. But the outbreaks in Southern China and the old jealousies of the Powers make the situation something less than secure. The real climax of the trouble may yet be ahead of us, for the present situation is not necessarily permanent.

WE ARE YET A RURAL PEOPLE

A recent census bulletin containing "a discussion of area and population" presents many interesting groups of facts, among them a table showing the distribution of population and area by topographical divisions. This study of the comparative density of population shows the suggestive facts that the New England hill region, which is less than 3 per cent. of the area, has more than 13 per cent. of our continental population—in other words, it is more than four times as densely settled as the average; that the lake region is more than twice as densely settled as the average; that the interior timbered region is two and a half times; and that the great prairie region has a little more than the average density of population. The country east of the great plains (except the Ozark hills and the coast lowlands) contains 51 per cent. of the area and nearly 94 per cent. of the population. In other words, about 94 per cent. of the people live in half the country, and the other half is by comparison hardly populated at all.

Another table shows that only two-fifths of the population live in cities of 2,500 inhabitants or more; in the North Atlantic group of States the urban population is more than two-thirds; but in the North Central and Western only about one-third; and in the South only a little more than one-sixth. In spite of our rush to cities, there are yet three countrymen to every two townsmen.

It is doubtful whether the little handful of our population that reads magazines and considers itself "the people" (of whom they are a very small part indeed) realizes that three-fifths of our population live outside the zone of gaslight and bath-tubs—in short, dig their living from the soil; and that (including mountains and swamps and deserts) half the country is hardly populated at all. The land and the people are yet new and raw, and we have hardly begun the serious development of either. A clear notion of the great rural stretches of life is given by the accompanying map.

IS THRIFT A LOST VIRTUE?

JUDGE SIMEON E. BALDWIN, of New Haven, several months ago told an audience of workingmen in Hartford, Conn., that despite the growing richness of the nation the working people are not saving as much in proportion to their numbers and to their earnings as their ancestors saved half a century or more ago. Perhaps not; but the general impression is contrary to Judge Baldwin's conclusion, and unfortunately there is no way accurately to ascertain whether he be right or not. The almost incalculable deposits in the savings banks which are made up in the main of the savings of the masses, show that thrift is not a forgotton virtue. On the other hand it often seems true that "every one strives to live as well as his neighbor; and display, extravagance, and a certain dash are evident in many ways." Men eat and drink and smoke too much and buy furniture and decorations foolishly, and women yield to the temptations of the bargain-counter. Few families in moderate circumstances now *show* the resolute purpose to live within their incomes that was so conspicuous an element of the old New England character. Yet the fashion of our time is rather to conceal thrift, as the fashion of the old time was rather to display it. We preach less, but is our practice worse?

Men of moderate incomes who have a resolute economy have a better chance of accumulating a competence than their ancestors had. They receive more money; and, although interest is lower, it is easier to get interest on small sums. If extravagant habits have come with greater prosperity, so have also securer methods of using and of increasing one's savings. Moreover, savings now take other forms than the straight hoarding of money that was

a part of the old-time New England habit. Men insure their lives, their health, and their undertakings. The vast sums that have made the great insurance companies the strongest financial institutions in the world, are made up of savings and, in a very considerable measure, of the savings of the working classes.

The question is a fair one, whether saving money be the same direct and overwhelming necessity for all classes of people that it once was. A skilled workman can now capitalize his skill and his health and his chance in life in ways that a man of the same kind could not have done a generation or two ago. He can insure his life; he can take insurance against accidents; he can in some cases, insure himself against the loss of work; he can buy a home and furnish it on credit, and by small payments; he can educate his children free in almost any part of the United States; he can both live better by his daily earnings and surround himself with more safeguards than a man could fifty years ago. The only safeguard against possible disaster once was cash in an old stocking But whether a larger proportion of workingmen wisely use the machinery of modern life than once used old stockings it is impossible to say.

As wages have increased of course the cost of living also has increased. Rent constantly rises, and breadstuffs, meats, and garden products have risen in price during the last year; and such a tendency makes saving somewhat harder. But if as long a period as twenty-five, or even ten years be considered, wages have risen faster than the cost of most items that make up the necessities of comfortable life. But whether it be easier or harder for wage-earners to save than it was a generation or two ago, is, after all, less to the point than temperament; for thrift is an individual quality. A man that has it will save, his savings will increase, and he will get rich. Another man of the same income, living apparently on the same scale of expenditure, but who has not the temperament of thrift will hardly keep even with the world.

POOR MILLIONAIRES AND CLERKS

MR. HENRY CHAPMAN WATSON did a good service when he called attention in a recent number of *The Saturday Evening Post* to the hard times that have come to "millionaires and to clerks," in other words, to the unproductive classes. By "millionaires" he meant those that live by sheer income from investments, and by "clerks" those that do unskilled labor at desks or behind counters. Investments, United States bonds or loans on real estate, for instance, that used to yield 6 per cent. or 7, or even 8, now yield 4, or 3, or 2 per cent.; and while the wages of skilled labor have in reased, the salaries of clerks have remained, and will remain till the end of the world, at $10 or $15, or at most $20 a week.

Well, this is as it should be, for these are unproductive classes. When a man puts money to productive uses it is the man that is the larger factor in the production; and the man who does not contribute his work or his thought or his skill, but only his money, properly gets a diminishing return. So, too, with "clerks"—those that are a part of the machinery for carrying out other men's plans. They are not primarily productive. They are either the young who yet lack training and experience, or they are of the class that remains secondary, and never becomes primary in the work of the world.

There could not be a more wholesome tendency in a democracy than the tendency that Mr. Watson's obvious but interesting generalization shows—not that anybody takes pleasure in the hard lot of millionaires and clerks, but that the economic righteous do, *per contra*, get their reward. The economic righteous are they who successfully use the millionaires' money and the clerks' time; they are they who have skill and who (above all other qualities) have imagination; for production and imagination go hand in hand. It were more accurate to say, perhaps, that imagination leads the way. A man without it must reconcile himself to remain an unproductive millionaire or a clerk; and it makes little difference to the world which he is.

THE INCREASING EASE OF GETTING BOOKS

EVERY inch or every rod gained in social development in any given direction makes another inch or another rod in the same direction possible—a truism that finds apt illustration in the swiftly-built service of the Book-Lovers' Library. The natural multiplication of free libraries in cities and towns, the even unnatural additions to them by Mr. Carnegie's beneficence, the continual development of

traveling libraries, the sale of books over the bargain counters of department stores, the sending of new books by mail by the publishers on approval—all these helps to the easy procuring of books by the public, instead of making the Book-Lovers' Library impossible, seem but to have prepared the way for it. At any rate it was left for Mr. Seymour Eaton at last to build up a library system, whereby books are delivered at short intervals at your home, no matter where you live, for a fee that is amazingly small. He seems to have overcome the old difficulties which have hitherto prevented the building up of a system like Mudie's Circulating Library, which is one of the institutions of England. These difficulties were a very large territory and high express charges. If we had a cheap parcel post as they have in England, a general circulating library could more easily have been made to serve subscribers in every well-populated part of the country. The ingenious and convenient addition to the Book-Lovers' Library of the Tabbard Inn Libraries, subscribers to which may take a book or return one from any distributing place—taking a book in one city, for instance, and returning it and receiving another in another city—illustrates as great Yankee cleverness applied to circulating literature as to—say, making and selling shoes, or the building of locomotives for use on every part of the globe. Thus the "American Invasion" attacks us ourselves in our own homes. And the interesting principle seems to be established that the more easily books can be got by the people, the more books the people will read; and every step in making them easy to procure makes the next step in convenience easier still.

The publishers of this magazine have proved for several years that it is safe and helpful to send new books to persons on approval. If after they have examined them they wish to buy them, they send the money; if not, they return the books. Thus every reader may become his own book-dealer. And there are many reasons to believe that, cheap and plentiful and easy to procure as books are, the science of their distribution has not even yet been developed to its utmost. We wonder, for instance, that a popular novel should have a sale of 300,000 or 400,000 copies. But the wonder really is that an intelligent and prosperous population of more than 75,000,000 should not buy more copies of a book that pleases the popular taste. Nobody has yet ever clearly pointed out why a book that is bought by half a million people is not bought by a million.

DECIDED PROGRESS IN CHECKING STRIKES

IT is now but four months since the Industrial Department of the National Civic Federation was organized with Senator Hanna as chairman, and already six labor troubles have been settled or averted. The clothing cutters were about to strike for an eight-hour day at the very time the board was organized, but Secretary Easley invited the leaders on each side to a conference, and a tie-up that would have involved more than 40,000 workmen was prevented. The union accepted a Saturday half-holiday in lieu of the shorter day. Next came the strike at the National Cash Register Works in Dayton, a factory famous for the social betterment work done there by President Patterson. A boycott had been instituted against the company's product; and the unions were not only fighting the company but having internal quarrels. With concessions from both sides the difficulty was amicably settled.

The board helped settle the great teamsters' strike in Boston at a time when the trouble threatened to disorganize the industries of New England. It compounded the nine months' war at the Union Iron Works at San Francisco, which had shattered the iron trade of the Coast. And forthwith it had to turn to the complicated quarrel in the paper-making trade, which bade fair to stop ninety per cent. of the country's paper production and leave the newspapers with but ten days' supply on hand.

The makers of print paper had fought their way down from seventy-two hours a week to sixty-five, and were agitating for shorter hours still, when one of the great paper companies raised wages, it is said, to $24.50 a week, for seven days of eight hours each, providing that no man need work on the seventh day against his will. The local unions accepted but at once came a protest from the other large company, and the president of a great labor organization went hot-foot to order the workmen back to the sixty-five hours: he refused to sanction work on Sunday. Here was a quarrel between trust and

trust, as well as between trust and union. A conference was held at Mr. Easley's office. It was arranged that the manufacturers shall submit an agreement to the unions in May, as soon as the agents sent out by the Federation have reported on the necessity of Sunday work. The recent coal strike was similarly prevented. The two sides agreed to a thirty-day postponement to consider the question.

This sums up the work of the Industrial Department to date. It has helped to arbitrate every important strike or threatened strike since its very inception. Now it is organizing permanent auxiliaries in Boston, Chicago and Philadelphia, and also working out a scheme of educational work which will tend to prevent strikes by getting at causes. The committee is a great human machine, wisely and ably removing one of the costliest, bitterest obstacles to industrial well-being. And its first months' activity has abundantly justified its existence.

THE INDUSTRIAL REVOLUTION IN A NUT-SHELL

IN a recent census bulletin on manufactures, an interesting general view is given of the manufacturing progress made between 1850 and 1900. Within that half-century, according to the best summary that the census office can make, the number of wage-earners was multiplied by 5½; their wages by 10; and the value of the product by 13. The increase of product was greater than the increase of wages, and the increase of wages was nearly twice as great as the increase in the number of wage-earners. This being translated means the development of machinery in that half-century; for it is set down in this same bulletin that the apparent value of the average wage-earner's product has increased from $1,065 in 1850, to $2,451 in 1900. If this be true, or near the truth, a workman in a factory (the average of all workmen) now turns out 2⅓ times as valuable a product as his predecessor did fifty years ago. Since all sorts of manufactures have been reckoned in this gigantic average, and since the value of very many manufactured articles is much less per piece than it was in 1850, this generalization is astounding. Here you may put your finger on the very central cause of our industrial rise. It is a machine-made progress. But men made the machines and men run them.

The table of the growth of our manufactures by decades and in detail shows some interesting general facts. The rate of increase in the number of establishments, in their capital, in the number of workmen, in wages—in everything—was smaller during the decade 1870–1880 than during any other decade of the half-century; and in almost every respect the most rapid rate of increase was during the decade 1880–1890. It was during that decade that our greatest rate of progress was made, results of which did not become so obvious till the last ten years.

But this single fact that the output of the average wage-earner in our factories increased in half-a-century in value 2⅓ times—this is the story, in short, of our industrial revolution. While the number of wage-earners was multiplied by 5½, the wages were multiplied by 10—proof that the gain has gone very largely into wages. This is the story, in brief, of our revolution, also in the condition of skilled laborers, and it explains why the skilled American workman leads the world.

THE VISIT OF LORD KELVIN

LORD KELVIN'S present visit to the United States recalls the pleasant fact that in 1876 (he was then Sir William Thomson) he was a judge at the Centennial Exhibition at Philadelphia. In that capacity he examined the first telephone of Professor Alexander Graham Bell. Every other physicist had thought the device but a toy, for its tone was feeble because it was not then reinforced by the Blake carbon button. Sir William gave the invention, just as it stood, his unqualified and enthusiastic indorsement; and this was the first encouragement of authority received by the struggling inventor. He has watched with the keenest interest the enormous development of American electrical industry, and has served as consulting engineer in planning the huge installation at Niagara Falls for the long-distance transmission of current.

As electrical engineer to the Atlantic cables of 1857-8 and 1865-6, he invented the mirror galvanometer and the siphon recorder, which render perfectly legible the feeble pulses which beat beneath the ocean. His reflecting quadrant and absolute electrometers have brought a new accuracy to the laboratories and workshops of the world. To navigation he has contributed inestimable boons,

first, a compass of utmost trustworthiness built of several thin parallel needles poised in silk netting, and a sounding machine of unapproached ingenuity. He is likewise the devisor of the absolute scale of temperature.

But an enumeration of Lord Kelvin's great contributions to science would fill many pages; he is the foremost living physicist. He has had a wonderful record as a teacher, too; he held the post of Professor of Physics at Glasgow for fifty-three years.

DR. EDWARD EVERETT HALE

LET us praise good men while they live, for after they are dead we cannot pay them any debts of gratitude. This was the admirable sentiment that Dr. Edward Everett Hale's neighbors and friends (who are coextensive with the whole population) displayed when they celebrated his eightieth birthday in Boston in April. The author of "The Man Without a Country," and many other books, preacher, editor, organizer of many forces for humanitarian work, eminent citizen, lover of his fellows, he has shown the versatility of the great men of former generations. He is the most eminent preacher now living among us; but it is not only nor chiefly as preacher, nor as author, nor as lecturer, that he has won the personal regard of the whole patriotic and intelligent population, but, rather as a man who has given his long life, unhasting and unresting to the unselfish service of mankind.

INVESTING IN DEMOCRATIC DEVELOPMENT

THE article in this number of THE WORLD'S WORK about Southern educational needs and opportunities makes pertinent a word of applause for the extraordinary educational awakening in several Southern States—in North Carolina in particular. The educational leaders are holding meetings in the several important towns, at which Governor Aycock, "the educational governor" speaks with directness and force of free education for all the people as the foundation of social progress. At a meeting of this kind at Greensboro, early in April, the citizens of the town subscribed more than $4,000 for the improvement of the schools in the neighboring rural school districts on condition that these school districts levy a special local school tax that will yield a like amount. On the same condition the General Education Board appropriated a like amount—the money to be spent through the local school machinery. Thus these moral districts that help themselves, receive double help—first from their town-neighbors and then from the General Education Board whose headquarters are in New York; and it comes about that the long-neglected country schools in the neighborhood of the Revolutionary battlefield of Guilford Court House receive an impetus in a way that shows the unity of the whole country in its purpose to build up American citizenship wherever for any reason it has lagged behind in its training.

THE WORLD'S FINANCIAL CENTRE

THE LARGE FACTS THAT SHOW THE SHIFTING OF CONTROL FROM LONDON TO NEW YORK—GIGANTIC PREPARATIONS FOR THE CHANGE

In this place in THE WORLD'S WORK there appears every month an article in which some timely and vital subject of the financial world is taken up]

A MOMENTOUS readjustment of the world's financial relations is at hand. The problem of dealing with it overpowers all other considerations of commerce today. New York feels that the time is not remote when she will become the banking centre of the nations. A very few years ago the United States was dependent upon Europe for the development of her resources. She is now paying her debts at a speed unprecedented in all history, so that at the present rate it cannot be more than a few years before this nation will be the world's creditor. But to displace England as the commercial mistress of nations and to uproot London's financial supremacy will require a great strug-

gle Preparations for the strife and the victory the great "generals of industry" foresee are proceeding upon gigantic proportions. New tools of international exchange are being hammered into shape. Titan-like machinery for the utilization of enormous masses of capital is being invented. It is to be a history-making competition between products, methods and brains.

Walter Bagehot says that London superseded Paris as the clearing house of Europe because of an infinitesimal depreciation in the value of the French bank note. The balance hung so critically that this tiny thread decided the question of future supremacy. England notified the nations that a pound sterling, no matter where purchased, would be worth so many grains of gold in London. That made London the banker for the world. Becoming banker, it was easy to spread her trade among all nations. Her manufacturers were the most skilful and enterprising in the world, and her ships carried her products to every harbor. England became the creditor of the world. Realizing that her position as creditor would not be secure unless she assisted in developing the resources of the world, she invested her surplus capital in foreign countries and became the world's great lending nation.

In all these years of British preëminence the United States was never thought of as a leading financial power. But when the smoke of the Spanish War had cleared away this nation was discovered to be possessed of wondrously rich colonies upon which to base a promising trade with the Far East. A few months later, when the international balance sheets for 1898 were footed up, it was found that the United States had for the first time in her history exported more manufactured goods than she imported, and had sold to the world in that year $600,000,000 more than she bought. Here was a tremendous new commercial factor, leaping into distinction almost at a bound. Phenomenal exportations continued through 1899, 1900 and 1901. The flood of sales abroad gives every evidence of continuing unabated, except when, as is now the case temporarily, an extraordinary domestic demand for manufactures affects the markets abnormally, and somewhat checks exportation.

Since 1890 there has been a steady decline in England's financial importance. From 1818 until 1890 receipts from her manufactures, revenues from her carrying trade, dividends upon her foreign investments and commissions to her bankers upon exchange remittances sent such a tide of money to London that England was securely fortified against a continual excess of imports over exports. But now English manufacturers are staggering under the pitiless tyranny of the trade union. Stubborn conservatism and false economics prevent the installation of labor-saving devices in factories. England's bankers throughout the world, believing themselves irrefragably secure in their preëminence, have become careless and even contemptuous, it is reported, in the treatment of foreign patrons. Exchange upon London is made to carry all that the traffic will bear. Merchants of all nations are groaning and crying for relief. England's commerce meanwhile has stood comparatively still. In 1900 she bought about $500,000,000 more than she did in 1890, while she sold but $200,000,000 more. The United States, in contrast, bought only $60,000,000 more than in 1890, while she sold an excess of $525,000,000.

The overwhelming balance of trade the United States has been accumulating in these years has been neutralized by the fact that ours is still a debtor nation. Great Britain has drawn tribute from the world upon her loans and investments. But in 1900 the United Kingdom bought from the world $1,000,000,000 more than she sold. Let it be true that English investments in foreign countries aggregate $10,000,000,000, as has been estimated. It is not possible that the total dividends upon this amount, added to the revenues from her carrying trade and the commissions of her bankers, will yield $1,000,000,000. The conclusion is irresistible that England has been paying out of her principal.

For five years the United States has sold an annual average of $500,000,000 more than she has bought. Experts figure that in 1898 there were $2,000,000,000 of foreign money invested in this country. Dividends upon this sum will not yield a shadow of $500,000,000 annually. There is no possible question that this nation has been liquidating its obligations abroad. Our securities have been coming home. Dividends our railroads

have hitherto paid to Europe are being paid to investors here. The United States will ere long cease paying to the foreign world a rent upon its own prosperity. It will not take an annual $500,000,000 any great length of time to amount to $2,000,000,000, even subtracting interest charges. The world will soon owe money to New York, as it has owed it to London heretofore. The merchant in Singapore owing a bill in New York will remit New York exchange instead of London exchange as now. The nations will settle their balances through the banks of New York.

These New York banks themselves have enjoyed phenomenal growth during the last decade. This city is now unquestionably the clearing house of the United States. The average daily deposits of the clearing house banks of New York amounted in 1890 to about $400,000,000; in 1901 they were about $1,000,000,000. The non-clearing-house banks now have about $80,000,000 deposits; the savings banks of the State, $1,131,000,000—more than double the amount in 1890, all practically subject to the city. The trust companies have $969,000,000, against scarcely a third of that sum ten years ago. Granting duplications, it is safe to say that these deposits represent more than $2,000,000,000 available for investment—the greatest amount of money accumulated in one place in so short a time in the history of the world. Observe, too, the comparative increase in the transactions of the New York and London clearing houses. In 1890, each of these cities cleared about $37,000,000,000. In 1901, London exchanges amounted to only $46,000,000,000, while New York leaped to the startling figure of $79,000,000,000. Too much cannot be inferred from these clearing house figures, but they are significant. The building of a canal across the American isthmus will make New York geographically the most important commercial centre in the world. Couple this with the probable future trade with the Far East and the comparative proximity of the United States to that market, and the possibilities before this metropolis will be still more strongly realized.

Far-sighted statesmen and financiers know that such a tremendous bank account, so favorable a geographical position, and such a trade balance, if the greatest possibilities are to be achieved, must be complemented by an accommodation of our banking methods to the changed opportunities and responsibilities. This apparently bewildering problem is being met with the same ingenuity as devised the industrial combination to prevent wasteful competition in processes of manufacture. Lawyers and financiers are studying the vast question, and are working out their own salvation without aid from or recourse to legislation. They are indeed afraid of legislation, and would prefer to adjust matters for themselves upon the old-fashioned doctrine that "trade makes its own laws."

Events have moved strikingly in this direction since the first of this year. On New Year's day it was announced that a strong company known as the International Banking Corporation had been organized and a special charter granted by the Connecticut Legislature. This concern has been capitalized at $10,000,000. The company is already handling the indemnity China is paying to the United States. Branches are to be established in the Philippines, in South America and, eventually, in Europe. Every facility will be afforded for direct remittance to New York. Before the first of February, James B. Dill, the corporation lawyer, had ransacked the statute books of New Jersey and found a forgotten law which permits banking institutions to do an interstate business. Immediately two interstate trust companies were formed. The ability to transact an interstate business carries with it ability to do an international business. Soon another trust company was formed to acquire a controlling interest in banks in different parts of the United States, and make their individual assets available for the use of any of the others. This was but a step toward the formation of a company which will own control of a chain of banks in foreign cities, making it possible to relay accounts from place to place.

The Guaranty Trust Company, one of the great financial institutions in New York, has recently secured an amendment to its charter enabling it to establish branches in Manila, Hong Kong and Shanghai. With this company is allied the New York Mutual Life Insurance Company, and the resources of that great institution may be expected to aid

development of this foreign business. Morton Trust Company, with which ıssociated the interests of the powerful ıpolitan Street Railroad, elected as its ırer, on March 1, Charles A. Conant, ı to be one of the leading experts on n banking in this country. The apnent undoubtedly foreshadows an ennent of the company's banking facilities lude this alien business. In his report bruary 29, 1902, the Superintendent of ; of New York State recommended that tate laws be so amended that financial ıtions might easily branch out into this · activity. The recent introduction into ress of a bill permitting branch banking tional institutions is another mark of the ncy toward more pliable means of exe. The bill may not pass, but the ncy is obvious.

is little known that several New York ; have become very powerful factors in inional exchange transactions in very recent . Men have been employed who have red the very intricate principles of age proceedings. These experts each ng receive cablegrams from correspondn each European capital giving current nge quotations upon every other Eurofinancial centre. Just as a chess player s his board, these men then study the y markets of the world, seeking to if anything can be gained by arbitragr shifting accounts from one place to er. As country bankers have deposits w York and Chicago, these great New institutions have accounts in St. Peters- Stockholm, Paris, London, Berlin, ıa, Brussels, Antwerp and Hamburg. nstant it is seen that a slight gain can ıde by shifting accounts or by shipping the exchange manager in New York ; an order for this to be done. The · was told recently by an officer of the nal City Bank—which institution has cally revolutionized foreign exchange ɔds in the United States in the last few —that that bank had engaged in many ıctions involving shipments of millions lars in gold and the shifting of accounts en five different cities, upon which the profit did not amount to more than y dollars a million. Every dollar in was eagerly seized. To make solid the foundation upon which all this exchange business with New York is done, Congress is now considering a bill providing for the convertibility of silver into gold dollars. The measure has been favorably reported by the committee in charge, and is fostered by the far-sighted men who are striving to make our financial supremacy secure beyond all peradventure.

Another factor in this momentous movement is the combination of banks and the harmonizing of financial interests. An analysis of the directorates of the leading banks of New York indicates that there are two great chains of interests—that led by J. Pierpont Morgan & Co., and that headed by Kuhn, Loeb & Co. Following these houses, it may be said, the finances of America have ranged themselves for the struggle with England. These two establishments are combining the industries and railroads of the nation into harmonious integers. They are making possible the mobilization of fabulous sums of money, so much so that the head of one of the important industrial combinations of the country said in a speech not long ago that the time was not far distant when the financiers of the United States would be thinking in thirteen figures, instead of the ten figures which dazzle the mind today. Strong and imposing financial machines are being built which can organize international industrial schemes and energize the world's banking facilities with the thrift, economy and enterprise of the great industrial corporations of the United States.

Yet if this becoming a creditor nation is to mean that this nation is to receive shipments of gold for its excess of exports, her supremacy cannot last long, for it will involve the impoverishment of her customers. The old mercantile theories of political economy have died their deserved death, and Americans of statesman-like point of view realize that if New York is to become the international centre of finance, the horizon of our financial life must be tremendously broadened. It is this feeling which is inciting American capital to seek foreign investment. The resources of other nations as well as our own must be developed. As the tribute from these nations for the use of our capital increases, the investments must be enlarged. There can never be an "European Monroe Doctrine"

interposed against American capital. It is difficult to understand the suggestion of an Austrian minister of a possible European commercial combination against the United States, for a statesman must know that this nation could not long retain financial preëminence unless she spent a large portion of the profits of her commerce in foreign countries. Her greatest gain would result if she should generate an electric current which should galvanize the trade and industry of the whole world.

In this matter of foreign investments action since the first of this year has been stirring and far reaching. In February, an American syndicate secured endorsement from the City Council of St. Petersburg of a plan to consolidate the street railroads of that city and to transform them into a trolley system — a scheme involving some $25,000,000. Charles T. Yerkes and his American confreres have enlisted American millions to build and equip a modern underground electric traction system in the city of London. An American company is now forming which will bid against an existing English company for the contract to build a trolley line in Shanghai, China. The British Westinghouse Company is rearing a $5,000,000 plant in Manchester, England, to construct electrical machines upon American models, and American capital is back of the whole enterprise. A coterie of New York bankers organized in February the British Railways Development Company, which is to build and equip trolley lines in the British Isles—and turn them over to English companies to be run for American benefit. The China Development Company—an American corporation, fathered by William Barclay Parsons, the well-known civil engineer—has secured a franchise to build a railroad from Hankow to Canton, China, a distance of 700 miles through country hitherto untrodden by modern commerce, a section offering trade possibilities well nigh incalculable. The engineer who is to superintend the construction left New York early in March.

All of this omits mention of American investments now being made extensively in Cuba, the Philippines, Porto Rico, Canada and Mexico. Emphasis must also be placed upon investments Americans are making in companies and institutions not under American control. Tremendous selling of foreign securities to Americans is done daily upon the London Stock Exchange. American bankers are introducing international investments to their customers. Russia applied several years ago to New York for a loan. Great Britain has conducted a considerable part of the Boer war upon money borrowed in New York. When Germany floated her last loan of 300,000,000 marks, an equivalent of the entire sum was subscribed in New York. It is true that the whole amount was not allotted here, but the evidence was unmistakable that American money was waiting in abundance for just such investment.

The nations of the world are today planning the most gigantic enterprises ever conceived by the mind of man. Russia will soon begin work on a canal connecting the Baltic and the Black Seas. France expects to build a railroad across the Sahara Desert, plunging into the heart of Africa. Thoughtful Englishmen talk of the necessity for a railroad from Cairo to Cape Town. Germany is now constructing a railroad through northern Persia. Another line is projected from Tunis on the Mediterranean, eventually terminating at Bombay, India, bringing Brindisi, in Italy, five days nearer to this important port of England's Indian Empire. Vast sums of money will be required for these enterprises. American bankers and capitalists are watching developments most closely, and will be quick to offer America's surplus capital for any advantageous undertaking.

We have been speaking of what is actually being done to elevate New York's financial importance. Thinking men maintain in addition that our financial supremacy will rest not alone upon the superiority of American goods, the perfection of our banking methods, and the placing of foreign investments. America's trade must be freer. Reciprocity agreements and tariff modifications are in the air. Unflinchable protectionists of a few years since are "low tariff" men to-day. The port of New York must be a free warehouse port before it can be a perfect money market. Financiers and statesmen are pondering over the problem of increasing our shipping. All of these subjects are receiving the greatest attention from those men who are striving most persistently and intelligently to place the United States in command of the commercial world.

BEYOND THE AMERICAN INVASION

THE REAL STREETS OF CAIRO WHERE TYPICAL OLD WORLD BUSINESS METHODS ARE IN VOGUE—HOW THE ARABS BUY AND SELL IN QUAINT SHOPS WHERE THE PRICE DEPENDS ON MOOD AND COMPETITION IS ALMOST UNKNOWN

BY

RALPH H. BLANCHARD

IN THE BAZAAR OF ARMS

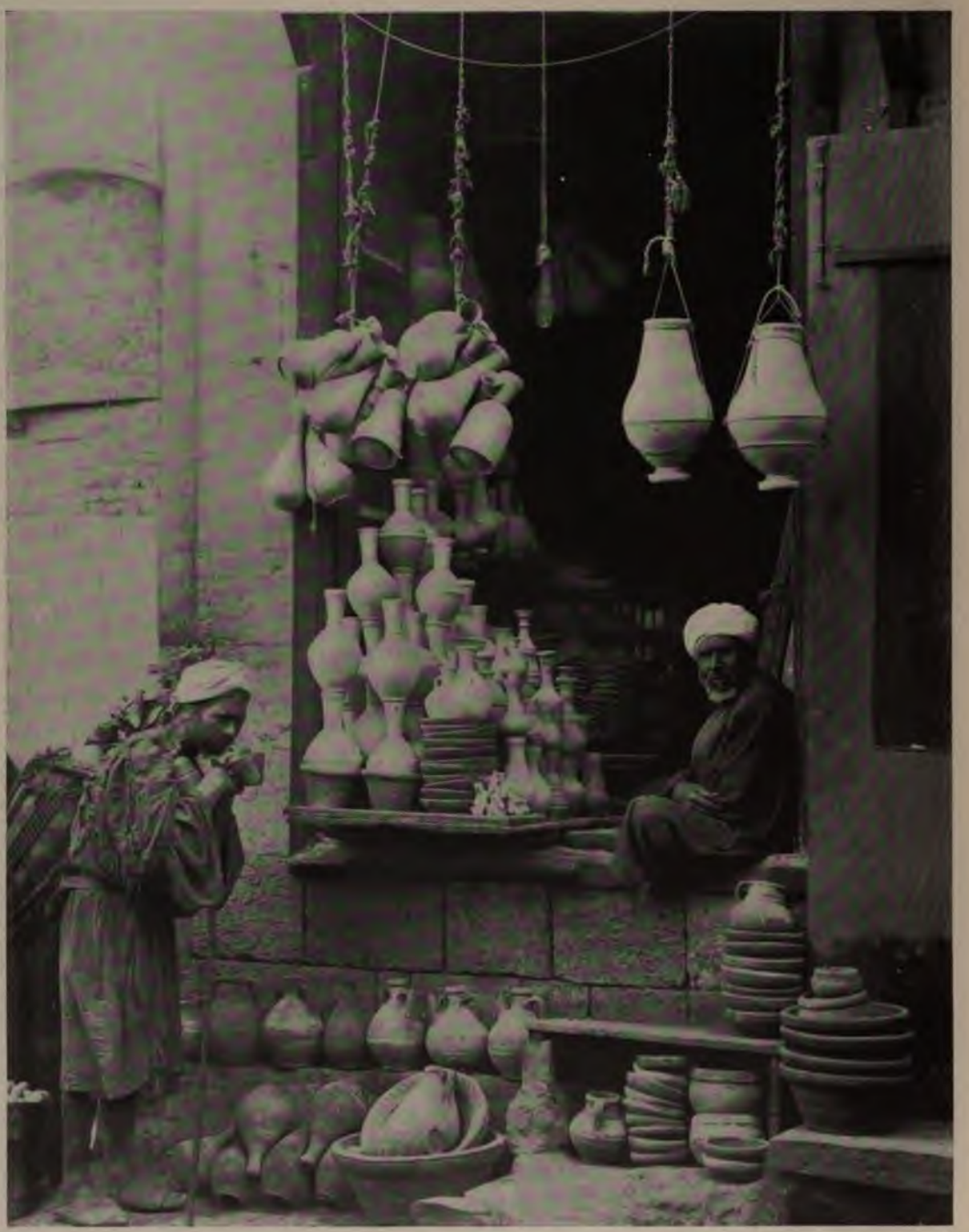
The Bedouins may be seen buying oddly-shaped guns for protection upon their desert trips The pistols are scarcely of American make

A DULL MOMENT IN COPPER

This section, where trays, kettles and incense burners, fashioned by skilful Arab boys, are for sale, is usually a noisy place

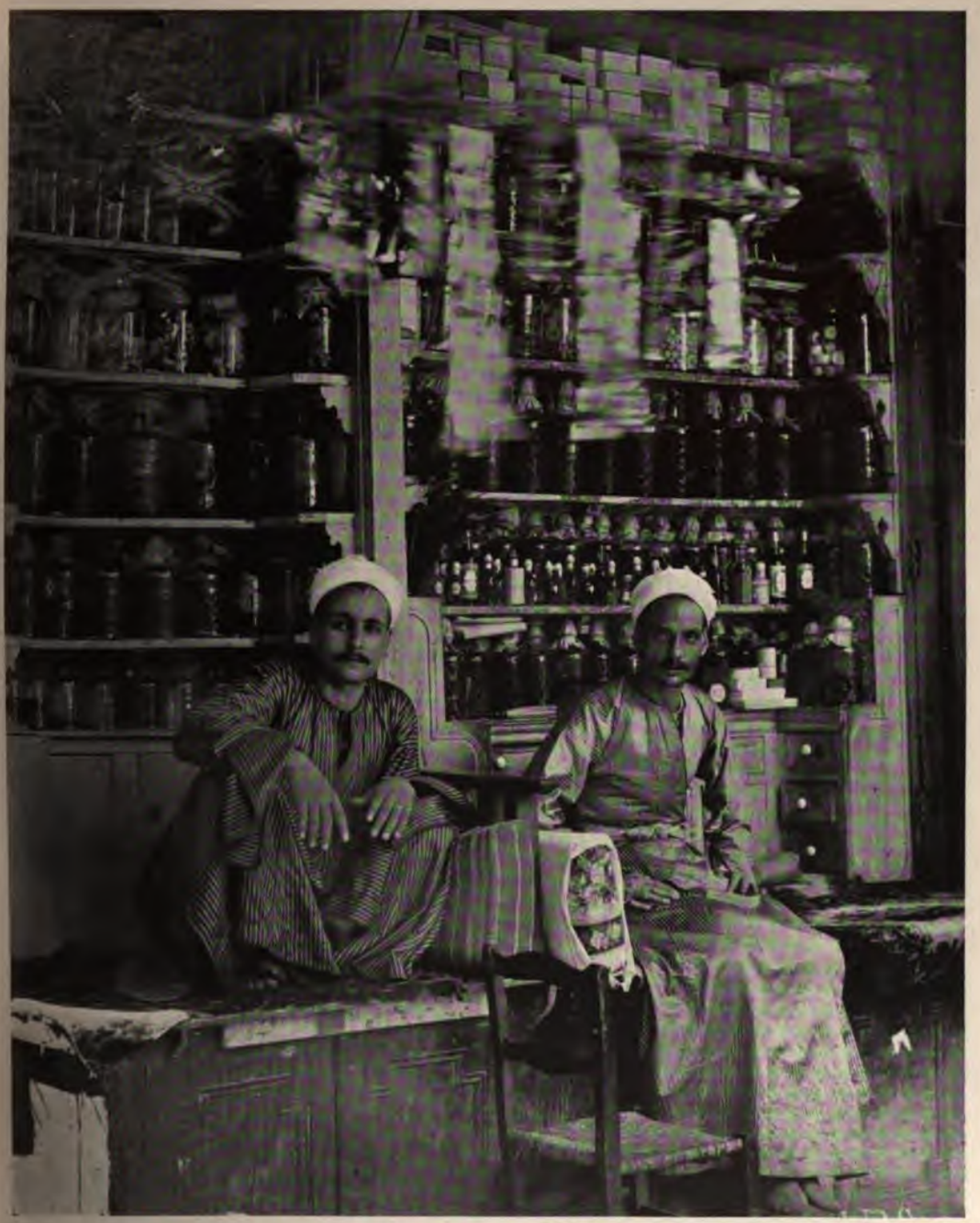
THE LANTERN BAZAAR

Further on, in the same street with the copper bazaar, is the lantern bazaar. During the month of Ramadan, when everyone strolls out at night carrying a light, thousands of lanterns are made here in fantastic shapes, of tin and glass, which delight the old people as well as the children



A SELLER OF "KULLEHS"

Here and there, in some old tumble-down building, is found a poor man selling "Kullehs" or water-cooling guglets, at a little more than two cents



IN THE PERFUME BAZAAR

Where more than one hundred box-like booths, almost exactly alike, line both sides of a narrow lane, each filled with bottles of scented oils, musk powders and ambergris paste. Among the storekeepers themselves an indolent peace seems to exist. Competition and rivalry are unknown. Dealers in the same class of goods occupy stores as near together as possible. Different prices prevail at each, according to the mood of the proprietor, and it often happens, therefore, that a whole day will be spent in visiting from one shop to another, before a purchase is made

BOOKBINDERS AND SPINNERS

Near the mosque of El Azhar, where the great Moslem school is situated, with over twelve thousand pupils, are to be found the bookstalls and the binders, who are fond of using red and yellow leather for the book covers. In the same neighborhood are the spinners who weave a fringe upon a piece of cloth or make a selvedge edge to order

MAKERS OF CAMEL HARNESS

Who sew large pieces of looking glass and cowrie shells upon the bright red flaps. Bells are also a feature in the gay trappings of the camel

A CAIRO JUNKSHOP

Many of the stores are simply niches in the wall of a building and are so small that they can only contain the limited stock in trade: the proprietor having to sit in the street. One of these rents for twenty-five cents a month, and this includes the privilege of chair space in front

A TYPICAL FRUIT STAND

These are familiarly situated on the corners and contain luscious displays of melons, pomegranates, grapes, mangoes, apples, figs, oranges and little pine nuts called "*senabre*"

WHERE BRASSWORK IS DISPLAYED

In the larger shops the floors are usually covered with one or more rugs, and before entering the native customers always remove their shoes. The workshops and salesrooms are usually combined in one

ONE OF THE GROCERY STORES

Which, filled with candles, soap, dried beans, etc., are found in convenient localities, while others are devoted to the sale of oil and sugar exclusively. Although the square pieces of castile soap are invariably sold at half a piastre, before a sale can be made each cake must be carefully weighed and made to balance an old piece of stone and a few pebbles picked up from the street, whose weight is quite unknown to both parties. This ridiculous system of playing at weighing is much used by itinerant vendors of various articles

A SADDLER

These workmen make bright-colored equipments for the donkeys and fine Arabian horses

WEAVERS OF BASKETS

About the poorest paid workers are those who manufacture baskets for fruit and berries. Out of ordinary grass they can make very neat little receptacles, but these sell for about one cent a dozen

THE CARPENTER SHOPS ARE RANGED CLOSELY TOGETHER

The different quarters are usually named after the kind of goods sold within their boundaries, while a street often bears the name of the article chiefly sold along its walks. The stores rarely have numbers, and the name of the quarter in which a place is situated suffices for an address. This is not so inconvenient as one would suppose, for a business once established is carried on by the son, after his father dies, for many generations. Everything, too, seems to be left to fate, and, as everyone employs the system, it works. During the hours for prayer, if a merchant goes to the mosque, he simply hangs a net over the door, without troubling to lock up the heavy shutters which protect the stores by night, and no one takes advantage of his absence

DRY-GOODS STORES AND SHOE SHOPS

These are closely crowded together by the dozen near the tent bazaar. Although in the European quarter of Cairo many of the latest productions from America and Europe are temptingly displayed in modern stores and sold at fixed prices, the Arab *will* go into the winding lanes and haggle for hours with his own countrymen when he desires to make a purchase. Nothing could induce him to pay the price first asked for anything he wants, and the storekeeper invariably refuses the first offer received for his wares. Over a few cups of coffee and cigarettes, obligingly served by the proprietor, they will talk and converse upon various subjects quite foreign to the purchase or sale of goods, but at last, with seeming reluctance, they come down to business and a decision is reached

THE OIL AND SUGAR STORE

The hours of business are from sunrise to sunset. Thus in the winter season the shops close at about half-past four in the afternoon, which seems rather early to the visiting tourist. Above the doors the Arabic signs are not, as one would naturally suppose, the names of the proprietors, but quotations from the Koran. However, where so few of the people can read or write it does not matter much what the signs say, and advertising, no matter how judicious, cannot pay

AMERICA AS A PEACEMAKER

ECONOMIC CONDITIONS THAT MAY GIVE THE UNITED STATES CONTROL OF THE BALANCE OF POWER—OUR INDUSTRIAL POTENCY THE SECRET OF EUROPE'S DESIRE TO MAKE FRIENDS—NO OTHER NATION SO GREAT IN LATENT STRENGTH—NEW PHASES OF EXPANSION THAT PROMISE BENEFITS TO ALL THE WORLD

BY

FREDERIC EMORY

CHIEF OF THE BUREAU OF FOREIGN COMMERCE, DEPARTMENT OF STATE

TO the "Pan-European chorus of good-will" toward the United States, which was noted in the March number of THE WORLD'S WORK, the voice of Austria-Hungary has been added in the announcement that she intends to raise her diplomatic representative at Washington to the rank of ambassador. This is generally taken to mean that that empire has abandoned the project of a commercial combination against the United States, which it is said to have originated, and has fallen into line with the other Powers in the new policy of conciliation and amicable adjustment of differences. Europe, therefore, may now be said to be practically unanimous in substituting cordiality for the lukewarmness or more or less open hostility with which our sudden and dramatic rise as a World Power was at first regarded.

CAUSES OF EUROPE'S CHANGE OF FRONT

The reason for this about face is to be found in a clearer and more general recognition by foreign Governments of the immense potentiality of the United States in industry and trade, and of the further fact that this potentiality may, perhaps, be converted by courtesy and tact from a serious menace into an amicable and beneficent force. On the one hand, Europe perceives that our expansion has no political significance other than that which inevitably attaches to the spread of our industrial and commercial interests in other lands, and the American people, so far from being covetous of more territory or eager to play an adventurous part in the world's affairs, are genuinely concerned as to whether they may not already have exceeded the bounds of safety for their cherished institutions in undertaking responsibilities which are foreign to their traditional policy of isolation. On the other hand, Europe appreciates no less strongly the fact that the giant forces at our command might easily be set in motion with disastrous results for any opponent if our material interests were seriously threatened.

The easy victory won by us over Spain would have but little significance to European statesmen, had it not served to bring sharply to their attention the underlying forces which made it possible. Until then, Old World diplomacy has regarded us as a more or less negligible quantity—an idea encouraged by our strict adhesion for more than a century to the policy of avoidance, so far as possible, of entanglement in European disputes and jealoussies.

When the Old World Powers had recovered from the shock of their surprise at our unlooked-for emergence, those that had been engaged in parceling out the globe among themselves naturally sought to ascertain the origin and to gauge the dimensions of the new world-force. They found the explanation not in the growth of the military spirit, nor in the size of our army and navy, but in our vast industrial resources and equipment, producing much more than we could consume, which necessarily forced us out into the world to seek new channels of consumption, and when found, to keep them open to our trade. It was not long before Europe awoke to the fact that, in spite of hostile tariffs and of higher transportation charges, with no merchant marine to speak of, we had so effectually mastered economy of production that we were able to compete with it in trade at its very doors. It was evident to the more far-sighted that a nation

which could do this possessed exceptional means of commanding respect. The conditions of modern warfare involve such heavy expenditure and so much trained energy and technical skill that the country having the longest purse and the greatest measure of industrial efficiency must, other things being equal, take the highest rank as a possible belligerent. A nation's military strength is gauged nowadays by its proficiency in the arts of peace. It is not the size of its battalions nor their fighting qualities which determine the final issue so much as the ability to support a protracted struggle. A striking example of this is seen in the course of the Boer war. A mere handful of Dutch farmers have kept the whole military strength that Great Britain could throw into their country at bay for more than two years. Had England not possessed the accumulated wealth, the variety of resources she has, she must have retired from the struggle months ago. On the other hand, had not the Boers been the frugal people they are, with all they need to support them in the country in which they are operating, they must have been wiped out long since. In each case, it is economic efficiency that has prolonged the war.

WHY WE ARE CONSIDERED FORMIDABLE

The economic efficiency of the United States has been shown to be so great, so varied, so resourceful, and in the war with Spain it demonstrated its capacity to support large military operations with ease in so striking a manner, that the impression made upon European statesmen has steadily deepened. Europe has been termed an armed camp. It was but natural that the appearance upon the scene of a young, lusty Power, with an equipment in material resources such as no other nation possessed and a sturdy population of nearly 80,000,000 to draw from, should at once raise the question of its capabilities as a possibly militant force. If we had neither a large army nor a great navy, it was seen that we had ample means and all the mechanical requirements for creating both and for supporting them longer than any other nation could, except perhaps Great Britain. The rapid progress of our trade all over the world, it was doubtless argued by European statesmen, was bound to create American interests abroad so great and so vital to our continued prosperity that we would of necessity be compelled to promote and protect them. It might easily be that collisions would result where our interests crossed those of some other Power or group of Powers. In that event, we should be formidable as an enemy, immensely valuable as a friend.

As a rule, even the most enlightened Governments do not take the trouble to cultivate a country unless it is worth cultivating. Europe has discovered that the United States is well worth cultivating; hence the general eagerness to bring about such a rapprochement as would create an atmosphere of friendliness, to borrow the happy phrase used recently by Ambassador White at Berlin, in which it would be easier to adjust any differences that may arise. This view of recent exhibitions of a desire to conciliate the United States does not necessarily imply any imputation upon the sincerity of the advances that are being made. Friendships between nations, as between individuals, must be based upon mutual respect, and Europe, having learned to respect us as a nation grown to man's estate, extends the hand to us as an equal with whom it wishes to deal amicably if it can. There have not been wanting mischief makers on both sides of the Atlantic who have sought to attribute to this or that Power a deep-seated hostility toward us, or a spirit of blustering arrogance on our part toward the rest of the world. The recent manifestations of good-will by nations supposed to be inimical and our frank and cordial acceptance of them have, therefore, been of great value in clearing the air and dissipating the miasma of international jealousy and suspicion.

OUR RESOURCES COMPARED WITH THOSE OF RIVAL POWERS

It is of interest just here to take stock of the elements of our strength in material resources which have made so profound an impression upon the world. From United States Treasury returns and Mulhall's Dictionary of Statistics (edition of 1899) the wealth of the chief industrial nations may be stated approximately as follows:

THE WEALTH OF NATIONS

	WEALTH TOTAL	WEALTH PER CAPITA
United States	$94,300,000,000	$1,235.86
United Kingdom	57,450,000,000	1,469.86
France	47,150,000,000	1,226.35
Germany	39,180,000,000	759.17

The United States Treasury statement of revenue and debt of the four countries under review makes the following showing:

THE INCOMES AND DEBTS OF NATIONS

	PER CAPITA REVENUE	PER CAPITA DEBT
United States	$8.78	$14.52
United Kingdom	14.26	74.83
France	17.95	150.61
Germany	8.39	9.96

It should be noted that Germany, which has a much lower debt than ours, was not called upon, as we were to bear the cost of a great war, the expenditure of the Franco-Prussian war having been defrayed by the indemnity exacted from France.

As long ago as 1896, according to Mulhall, the value of the output of manufactures in the United States was more than double that of Great Britain's long established industries, and considerably more than half of the manufacturing product of all Europe. The figures reduced to our currency are:

MANUFACTURED PRODUCTS OF THE NATIONS

United States	$9,635,670,000
All Europe	17,373,405,000
United Kingdom	4,263,054,000
France	2,900,434,000
Germany	3,357,885,000

The United States Census returns give the gross value of manufactured products of this country in 1900 as being over $13,000,000,000, an increase of 39 per cent. over the gross value in 1890.

It must be borne in mind, of course, that the exports of the European countries, are, in the main, the product of their manufacturing industries, while ours are still most largely agricultural; but the fact that we continue to furnish the people of Europe with the bulk of their imported food supplies and vast quantities of raw materials serves only to emphasize the superior strength of our position. The country which can feed and clothe itself more generously than any other, and nevertheless spare $940,000,000 worth of the products of the soil to send abroad, can obviously stand the strain of war far better than any of the nations that are more or less dependent upon the outside world for the necessaries of life. We are still and shall probably long remain the chief granary of Europe, and the nation which suspended commercial intercourse with us would inevitably suffer, even though it continued to obtain supplies from us through the medium of a neutral Power.

Coal and iron are regarded as the bases of modern industry, and in the production of these, also, we are far in the lead of any other country. In 1899, according to the report of the United States Geological Survey for 1900, the production of coal in the United States exceeded for the first time that of Great Britain, and in 1900, with an increased output of 16,141,835 short tons over the preceding year, the lead over the output of Great Britain was almost exactly doubled. Besides mining enough for our own consumption, we are sending coal abroad, and it has been found to be so satisfactory for steaming purposes, that its export to Europe is likely to become an important factor of our foreign trade, especially as our own consumption of coal must diminish with the increasing use of petroleum as fuel, consequent upon the development of the oil-wells of Texas and the cheapening of the product.

The total world's production of pig iron in 1900, according to Mr. James M. Swank, general manager of the American Iron and Steel Associaton,* was 40,400,000 long tons, of which the United States made 13,789,242 tons, or fully 34 per cent., and the total production of steel was about 27,200,000 tons, of which the United States is credited with 10,188,329 tons, or over 37 per cent. England, so long in the lead in the production of iron and steel, has fallen far behind us, as shown by the following figures:

	PRODUCTION IN 1900 OF PIG IRON	STEEL
United States (Long tons)	13,789,242	10,188,329
United Kingdom (Long tons)	8,908,570	5,050,000
Excess in favor of the United States	4,880,672	5,138,329

Our total exports of iron and steel, which include locomotives, car wheels, machinery, castings, hardware, saws and tools, sewing machines, stoves, printing presses, boilers, etc., amounted in 1900 to $129,633,480, against $105,690,047 in 1899; $82,771,550 in 1898, and $62,737,250 in 1897. Our exports of iron and steel more than doubled in value in the four years. Our exports of agricultural implements, which are not included above, amounted in 1890 to $15,979,909, against $13,594,524 in 1899, $9,073,384 in 1898, and $5,302,807 in 1897, showing an increase in value of more than threefold in the four years.

The adequacy and cheapness of transportation facilities are important elements of a

* "Iron and Steel at the Close of the Nineteenth Century;" published by the U. S. Geological Survey, 1901.

country's economic strength, and in railway mileage and in interior and coastwise navigation, the United States again heads the list. The total length of railroads in operation in this country in 1900, was close upon 195,000 miles, or some 22,000 miles in excess of Europe's railroad mileage at the end of 1899, and nearly 41 per cent. of the total estimated mileage of the world. Freight rates are generally conceded to be much cheaper than in Europe, and thus with unequaled natural and industrial resources, we have also superior facilities for assembling them at convenient points with the least burden of expense.

ARE WE ABOUT TO CREATE AN OCEAN MARINE?

The weak point in our armor is the lack of an efficient merchant marine, and the consequent dependence upon other nations, involving a large annual tribute to them for the shipping needed to maintain and extend our foreign trade. But, as Mr. Swank points out, we are exceptionally rich in iron and steel, the essentials of modern shipbuilding. "No other country," he declares, "possesses in such abundance the raw materials (and also cheap fuels) for the manufacture of steel as the United States; and no other country has developed a more skilful or more enterprising class of iron and steel makers than our own." A German economist, Prof. Von Halle, who recently visited our larger shipbuilding plants, gives them high praise as being in advance of those of Europe in modern technique and "the most perfect apparatus and tools," enabling them to turn out "the very best quality of work," and threatening a serious competition with the German yards. The splendid war vessels they have constructed, not only for our own Government, but for foreign Powers, would seem to indicate that our superiority as an economical producer of steel, combined with the mechanical ingenuity and efficiency they have shown, should enable our shipwrights to build better and cheaper vessels for the merchant service than can be produced elsewhere. It is to be presumed that they are only awaiting the time when a sufficient demand shall have been created by the removal of the conditions unfavorable to the investment of American capital in the carrying trade. The element of higher wages for labor in the building and operating of ships will probably have less and less weight as a deterrent to such investment, as the fact becomes more widely recognized that highly paid skilled labor, with the aid of machinery, produces more cheaply than the so-called pauper labor of other lands. The number of men employed in operating a ship, moreover, is already being reduced by the introduction of machinery and mechanical appliances, and it may be expected that the inventive faculty which has wrought such wonderful economies in our mills and workshops, will bring about a similar saving in the cost of ocean transportation.

These considerations provide another and a very striking illustration of the value of a highly developed industrialism as the basis of military strength. In the extension of commerce, efficient navies are the surest guarantees of protection and unobstructed growth. If it ever came to a trial between the United States and any other Power as to which should have the greater navy, it would seem to be clear, from the foregoing presentation of our unequalled resources for building vessels of the best type, that in the long run, we must win.

CONTROL OF THE BALANCE OF POWER

Thus, although we neither are nor wish to be a great military Power, it is evident that we possess abundant means of asserting and defending our interests wherever they may be assailed, and that, consequently, our acquiescence has become a matter of the first importance in the successful prosecution of a foreign policy affecting our new and growing stature in the world by any one of the stronger nations of Europe. It is because Europe perceives in us the rapidly germinating seeds of the same "irresistible potency" in political affairs, that Benjamin Kidd, in his "Principles of Western Civilization" ascribes to us "in the economic era upon which we are entering," that she has been so quick to exchange a negligent regard for the most distinguished consideration and esteem. Our influence thrown into the balance of any momentous question might easily tip the scale. It would seem to be important, therefore, for Europe—and it is evidently so considered by the wiser men among her rulers—to remove all unnecessary causes of friction and to establish new relations with us on a basis of amity and concord

that would predispose us to friendly discussion of differences as they arise.

THE AMERICANIZATION OF EUROPE

And what of ourselves? As our ability to compete in foreign markets increases, as it doubtless will increase indefinitely, are we likely to push our advantage to extremes and wage commercial war without quarter upon the other industrial nations, with the possible result of political complications of a serious character? Such seems to be the ambition of some of the more short-sighted and selfish among us who imagine that we are industrially sufficient unto ourselves and can crowd the manufacturing countries to the wall with increasing profit to our trade. It needs but a glance at actual conditions to see that such a policy cannot but break down in the end, and that forces are at work in the contrary direction which may bring about a final adjustment that would make us the greatest of all contributors to the peace of the world

Besides the obvious folly of impairing the purchasing power of our best customer—and a single country of Europe, Great Britain, takes from us nearly three-fourths of our sales to all the rest of the world—by ruthlessly strangling its industrial prosperity, we have to consider a capitalistic drift from our shores to those of other countries which seems certain to alter our economic relation to Europe materially at no distant date. A recent consular report is highly significant of the impending change. Consul McFarland, writing from Nottingham, February 17, 1902,* quotes a newspaper article describing the Westinghouse Electric Works at Manchester, as showing notable results of American energy and tact in stimulating the working capacity of British labor. The Westinghouse Company of Pittsburg decided, some two years ago, to establish a plant in England for the manufacture of electrical apparatus. Work on buildings at Manchester, to cover 130 acres of ground, was begun in the spring of 1901, and it was estimated by British builders that it would occupy several years. To their astonishment, the buildings are already completed and ready for the installation of machinery. How was it done? By means of the skilful management and "drive" of an American contractor, aided by a staff of half a dozen young fellow-countrymen who were imbued with the same spirit. The workmen, all British, were accustomed to trade-union limitations as to quantity of work to be done per day, but this restriction was overcome by the payment of higher wages than the union required. The British limit for bricklaying, for example, was 400 bricks per man per day, but the Westinghouse manager succeeded in establishing an average of 1,800 bricks per day, with a maximum of 2,500 bricks for the plainest work. With British labor, results were obtained that, we are told, "are absolutely unique in the records of British industry."

We have known for some time that United States manufacturers were establishing plants in Europe, in order to obtain the benefit of proximity to markets and saving of ocean transportation charges, and in the Continental countries, relief from high customs duties, but it was believed that a long time must elapse before European labor would be able even to approach the degree of efficiency and rapidity of production which had been reached in the United States. What has been accomplished by the Westinghouse Company at Manchester, therefore, is a revelation to us, as well as to Englishmen, and it suggests the thought that our capital and energy may be largely employed in educating European labor and equipping European industry for a much more strenuous competition with ourselves than would have been possible, for a long time to come, by the mere imitation of our methods and the adoption of our labor-saving machinery and tools. In other words, if we Americanize Europe in industrial production, we shall no longer enjoy the advantage we now possess, of a greatly superior efficiency, but will have to compete on more nearly equal terms.

It is not to be inferred that such a result would be calamitous for us. On the contrary, it might be distinctly beneficial in diverting us from European markets in which too great success would spell ruin for countries which now buy most largely from us, and in turning our efforts to comparatively undeveloped quarters of the globe offering large prospective markets where European competition would be not nearly so potent as at home. The outcome could hardly fail to be a gradual subsidence of the European fears of our

* See *Advance Sheets of Consular Reports*, March 14, 1902.

economic supremacy as a destructive force, and its recognition as a powerful contributor to the regeneration of European industry, by the infusion of those qualities which have brought us so suddenly to the front.

OUR INDUSTRIAL ASCENDANCY A PLEDGE OF PEACE

If a considerable number of our great manufacturing firms should establish plants abroad, and we should go on investing large sums in commercial enterprises, street railroads, steamship lines, and other public utilities in Europe, is it not probable that our interests would at length become so interwoven with those of the Old World countries that we would be exceedingly loth to enter upon any line of action that might threaten their prosperity? Mr. Walter F. Ford, in an article in the *Contemporary Review*, for March, 1902, asserts that the United States is already investing an annual sum of approximately $450,000,000 in Europe. If this be true, have we not a great stake in the preservation of a safe equilibrium there? It would be an inestimable gain to humanity if our admittedly vast power should be controlled and directed to such ends; in other words, that it should be converted into a constantly broadening agency for diffusing throughout the world the fruits of our industry and enterprise, and for building up a new, more vigorous order of industrialism in countries that, but a little while ago, seemed given over to stagnation and decay as the consequence of our encroachment. Commercial wars would become very rare, if not impossible, when the whole industrial world, following the leadership of the United States, had reached the common plane of efficient production in the lines especially suited to the particular resources and form of energy which each country found itself best able to exert, and of free exchange among the nations of their special wares. This internationalization of production, as it has been termed,* may be held to be visionary and improbable of realization, because of its vastness and its apparent complexity, but so much has actually been accomplished and the economic tide set so strongly in that direction, that it would seem to be but a question of time. It is the more likely to be realized because it does not depend upon sentiment or prejudice, or even upon the preferences of a particular nation, but is the natural evolution of the new conditions created by the industrial ascendancy of the United States.

THE REAL SOUTHERN QUESTION AGAIN

EDUCATIONAL CONDITIONS IN THE SOUTHERN APPALACHIAN REGION—A DETAILED STUDY OF LIFE IN TWO TYPICAL COUNTIES

MUCH as has been written about the educational needs of the rural South, the definite facts, as shown by official reports, have seldom been conveniently presented. Still less often have the results of personal investigation been made accessible. The facts that are presented here, we fear, make dull reading; but two important general conclusions stand out that are easily grasped; and they are emphasized because, in a measure at least, they show just what the problem is. In the ten Southern States south of the Potomac and east of the Mississippi——

(1) *Adult white illiteracy is as great as it was before the Civil War;* and

(2) *The total public school expenditure in these States is five cents a day per pupil for only eighty-seven days a year.*

The ten States south of the Potomac and east of the Mississippi contained in 1900, in round numbers, sixteen and a half millions of people, ten and a half millions of them white and six millions black. In these States there

* By Nathaniel T. Bacon, in the *New York Times*, January 5, 1902.

are nearly four million white and nearly two and a half million colored children of school age (five to twenty years)—a total of six and a half million children to be educated. What prospect have they under existing conditions of getting a fair public school education? This is a question which means a great deal not only for their future, but for the future of the whole country.

To begin with, the reports of the Commissioner of Education show that in 1900 only sixty per cent. of them were enrolled in any schools whatever. The average daily attendance was only seventy per cent. of those enrolled. In other words, only forty-two per cent. of these children were at school. One-half of the Negro children and one white child in five never gets a chance to learn to read. Careful analysis of the reports of the State superintendents shows that the average child, whites and blacks together, who attends school at all stops before the end of the third grade. In North Carolina and in South Carolina the average citizen gets only two and a half years at school in his whole life and in Alabama a little less. This estimate includes both public and private schools. In the whole South the average citizen gets only three years of schooling of all kinds in his entire life.

Let us see next what kind of schooling this is. The average value of schoolhouses and equipment in North Carolina is $180, in South Carolina $178, in Georgia $523 and in Alabama $212. The average salary of a teacher in North Carolina is $23.36, in South Carolina $23.20, in Georgia $27 and in Alabama $27.50. The average number of days school is taught is—in North Carolina 70 in the year, in South Carolina 88, in Georgia 112 and in Alabama 78. The average expenditure per pupil in average attendance is—in North Carolina $4.34, in South Carolina $4.44, in Georgia $6.64 and in Alabama $3.10 per annum. In other words, in these States in schoolhouses costing an average of $276 each, under teachers receiving an average salary of $25 a month, we are giving the children in actual attendance five cents' worth of education a day for only eighty-seven days in the year.

What are the results? Figures of illiteracy are a poor index of the condition of a population as regards education, but they signify much. The ratio of white adult illiterates in the Southern States increased during and immediately after the Civil War, and since then they have decreased very slowly. The ratio of white illiteracy is now in typical Southern States just what it was in 1850. In other words, among the whites of the South we have as large a proportion of illiterate men as we had in 1850. During the last fifty years no progress has been made in lifting the cloud of ignorance even from the white race.

So far we have considered these States as a whole, cities and country, mountain and low country, all together. What is the situation among the mountain whites of the South? A special effort has been made to learn the condition of things in this great mountain belt between the Blue Ridge on the east and the Cumberland Mountains on the west, extending down over the Appalachian system from Virginia to Alabama. This region, settled originally by the Scotch-Irish, English and German, the same stock as those who settled Central New York and Pennsylvania, is the home of the Southern whites. It is the great source from which the tremendous streams of population have gone that have filled the West all the way from Indiana around to Texas. It is a great mistake to suppose that these people come of a depraved stock. This impression has grown out of the old idea that they are the descendants of indentured servants or renegades from the old colonies. There are no facts whatever to support this theory. Mr. John Fox, Jr., probably expresses it correctly when he says that they are the people whose pioneer fathers, either through the attraction of the scenery or of the game, or because of some accident, were detained in the mountains on their way west. "The axle broke" and the family had to stop and go into camp, with the result that their descendants remain in the mountains today. These people come of good stock. Any one who looks in the faces of the healthy, bright-eyed boys and girls of the mountains today can see this. They are the children whose fathers fought the battles of King's Mountain and Guilford Court House in the Revolution, who won the day under Jackson at New Orleans, who furnished the majority of the soldiers for the Mexican and the Civil Wars, and who in the

recent Spanish-American War furnished more volunteers than any other portion of the country except Massachusetts. As the Appalachian range is the backbone of the Eastern American continent, so the people of these mountains are the backbone of our American body politic. Their present characteristics are due to their isolation. The solitary life of the mountaineer is the key to his characteristic individuality. It is the lack of opportunity for education and for intercourse with the rest of mankind that makes him a type distinct from his brethren in the lowlands of the East or the Mississippi Valley on the West. The idea that the mountaineer derives his characteristics from any special racial influence is altogether erroneous. They are an important part, perhaps from a physical standpoint the purest and strongest part, of our original American population. It is important for us, therefore, to ascertain what the present condition of this population is and what prospects their children have for an education.

In that portion of West Virginia, Virginia, Kentucky, North Carolina, Tennessee, South Carolina and Georgia contained between the Blue Ridge on the east and the Cumberland Mountains on the west, there were in 1900 in a total number of 870,537 adult male whites, 142,312, or more than sixteen per cent., who could not read or write. But in different States the conditions vary very much. In West Virginia only ten and one-half per cent. of the white voters are illiterate, in Kentucky more than twenty-one per cent. are illiterate. Whence this difference? Inquiry reveals that a great many males have come into West Virginia from Pennsylvania, Ohio and other Western States to work in the coal mines, the oil wells and the lumber mills, who have enjoyed better privileges in the States from which they came.

This region is not all mountainous. It contains many broad and fertile valleys and a number of large towns. If we omit West Virginia and the towns along the railroads one white voter in every four is still unable to read and write.

General statements of this kind fail, however, to give a fair conception of the actual conditions in any country. One must get on his horse and ride through the country, live with the people, visit the schools and churches, and study the conditions at first hand in order to get a correct idea of the situation.

We present herewith the facts about two typical counties in this region. Hawkins County, Tennessee, an average valley county, away from the railroads, and Madison County, North Carolina, an average mountain county.

A STUDY OF HAWKINS COUNTY, TENNESSEE

Hawkins County is in the valley of the Holston river along the northern boundary of Tennessee, with the Clinch mountains lying to the northwest, and Bays mountain range to the southeast. The Southern Railway skirts the southwestern part of the county for a distance of less than three miles, and a branch road from Rogersville Junction to Rogersville is sixteen miles in length. The county roads are in such a condition as to render travel in bad weather very difficult.

The county was settled early by Scotch-Irish and English. The people are above the average of the strictly rural counties of eastern Tennessee in both intelligence and wealth. Rogersville, the county seat, has a population of 1,386. It is one of the oldest towns in the State, and has long been known for its excellent people. The chief agricultural products are wheat and corn, and stock-raising is an important industry.

In a total population of 24,000 (we give only round figures), there are 22,000 native born whites, sixteen foreign born whites, and 2,000 colored persons—an average population of fifty to the square mile, which is above the average in Tennessee, and of most Western States. Of the adult white males, twenty-five per cent. are illiterate; of the colored, fifty-three per cent. are illiterate. In other words, one white voter out of every four, and one colored voter out of every two, can neither read nor write.

According to the Tennessee State Superintendent's Report, the total reported enrolment in the schools is 7,000, or seventy-two per cent. of the total school population, probably too large a figure. The elementary school has five grades, and the secondary school three additional grades, making eight grades in all. The first grade had 2,200 pupils; the eighth only 100.

The average daily attendance is 5,669, or eighty-one per cent. of the total enrolment,

and fifty-nine per cent. of the total school population, also too large a figure. The average number of days in which school is taught is eighty-five, and if the reported enrolment is correct, the average number of days attended by each pupil enrolled is sixty-nine in a year, and the average number of days attended by each person of school age, fifty.

There is an average of seventy-five children to each white school, and sixty-nine children to each colored school. There is a school for every 3.77 square miles. The total number of teachers is 136,—sixty-six male, seventy female. Of this number, 124 are in white schools and twelve in colored schools. The average salary of teachers per month is $24.

"Consolidated schools" (schools which are run on public funds for part of the year and continued by private subscription) are in session about eight months, four months of which time they are conducted as private schools. There are nine such schools reported in Hawkins County. The total value of the property of these schools is $8,590; the total earnings for the private part of the session, $1,525.

The total number of school buildings owned by the county is eighty-seven; one of brick; forty-one frame, one or two rooms, very simple; forty-five log, very primitive. The estimated value of houses, grounds, sites, desks, seats, etc., is $19,500, making the average value of a schoolhouse $224.14. The estimated value of all school apparatus in 130 schools is $550, making the total estimated value of school property $20,050.

FARM LAND IN NORTH CAROLINA

The total taxable values in Hawkins County in 1900 were only $2,223,996 or $91.64 per capita of population. Of the 6,184 taxpayers in the county, 2,041 pay only a poll tax; 500 on property valued at less than $100; 1,700 on property valued between

$100 and $500; 1,000 only on property valued between $500 and $1,000; 900 on property valued between $1,000 and $5,000; and only ten persons pay a tax on property valued at over $5,000. The school tax is forty-five cents per $100. There is an additional tax of $1.50 on each poll, thirty-seven cents per $100 on privileges.

The average head of a family of five persons has property valued at $458, and pays the State and county $5.50 in taxes. Current State revenue collected from Hawkins County for the year ending December 19, 1900, was thirty-eight cents per capita of population.

The total amount of school money received from the county is $12,350.15. In addition to this, the amount of the State fund apportioned is $1,748.53 and the amount derived from other sources is $2,015.65, making the total amount received, $16,114.33. This means that the average amount received this year for each school is only $123.95, and the average for each school day in each school, including everything, $1.46, or three and one-tenth cents per pupil per school day.

There has been no increase in the total expenditures for the schools of this county, but a slight decrease since 1891; in that year the total amount expended was $15,651, or seventy-six cents per pupil per month, while in 1900 the total expenditure was $14,954, or sixty-two cents per pupil per month. The largest amount expended during the period was $16,466, in 1896

INSIDE A SCHOOLHOUSE
Clay County, North Carolina

SCHOOLHOUSE, CLAY COUNTY

MADISON COUNTY, NORTH CAROLINA

Madison County is situated in the heart of the great Appalachian mountain chain, along the western boundary of North Carolina. The beautiful French Broad river bisects the county, passing through it a roaring torrent between precipitous hills. The Southern Railway winds its way through the gorge of the river for a distance of twenty-three miles, furnishing a ready access to markets. The condition of the roads, however, is such as to render them practically impassable.

The county was settled early by Scotch-Irish, English and Germans. It is an average county of the mountain section of North Carolina, and its inhabitants are of the rugged mountaineer type, which has not yet been reached by the advance of modern civilization; they are a people of much kindliness of heart. Marshall, the county seat, is a village of 337 inhabitants. Hot Springs is the most noted spot in the county, celebrated as a health and pleasure resort.

The county being essentially a mountain territory, its timber furnishes the basis for a great industry. The mineral wealth of the section is known to be great, but it is undeveloped. Grains and grasses are grown in abundance, and stock raising is a source of considerable revenue.

In a total population of 20,644, there are

A TYPICAL BACKWOODS NORTH CAROLINA STRUCTURE

20,072 native born whites, fourteen foreign born whites, and 558 colored persons—as nearly a pure native white American population, perhaps, as can be found in any county in the United States. Of the white voters, twenty-six per cent. are illiterate; of the colored voters, thirty-nine per cent. are illiterate. In other words, about one out of every four white voters, and two out of every five colored voters, can neither read nor write.

The school population is 8,143, an average of nineteen to the square mile. The total reported enrolment is 4,870, or sixty per cent. of the school population. The average daily attendance of schools was fifty-six per cent. of the total enrolment, or about thirty-four per cent. of the school population.

The average length of the school session in white schools is fourteen weeks or seventy days; the average number of days attended by each white child enrolled, forty; the average number of days attended by each white child of school age, twenty-four. There is an average of 116 children to each white school, and there is a school for every six square miles. The male teachers are paid $24.59 a month, female teachers, $22.38.

The total number of school buildings owned by the county is fifty-seven: one brick, eleven log, forty-five frame. The value of public school property in this county is estimated at $10,417, making the average value of a schoolhouse with its equipment, $182,75.

The total amount of school money received by the county treasurer for 1900 is $6,818.03. This means that the average amount received for each school is only $97.40, and for each school day in each school, including everything, $1.39. The amount expended in 1900 is $6,232.69, or *thirty cents per capita of total population, sixty-four cents per pupil per month*, and *three and one-fifth cents per pupil per school day*.

The similarity between these figures and the corresponding figures for Hawkins County, Tennessee, is striking.

These people have not changed in any essential respect since the days of the pioneer.

VALLEY OF BANNER'S ELK
From West Path of Beech Mountain, Watauga County, North Carolina

THE NEW BANKING METHODS

THE EVOLUTION OF THE BANK AS A SORT OF FINANCIAL DEPARTMENT STORE — THE COMMERCIAL TRAVELER FOR BANKS—THE OLD DIGNIFIED METHODS GOING OUT OF DATE

BY

WILLIAM JUSTUS BOIES

THE financial department store is the most interesting product of competitive banking methods. It has been developed within the last decade, but it already gives under one roof the facilities that a dozen separate institutions afforded a generation ago. It is a sort of bank, trust company, savings institution, safe deposit vault, and utility store, all in one, organized so as to do everything a customer asks it to do. This new institution still calls itself a national bank, but its atmosphere is as unlike that of the old-fashioned bank as summer is different from winter. It is banking by human touch.

Let me illustrate how the changes have been brought about by telling the story of two or three great banks. One whose business has now grown to national proportions, some years ago learned the lesson that assets do not take the place of friends. Every one knew that it was a strong bank, but notwithstanding a yearly showing of large profits it could not attract out-of-town accounts. Other banks with smaller resources did ten times the out-of-town business. The problem was studied in a practical way. It was found that the large bank with its great resources was a forbidding place, where everybody received a chilling reception. It earned dividends but it turned away friends. When a country correspondent paid it a visit, he was looked upon with suspicion, and questioned about his business standing. No one called upon him at his hotel or showed the slightest interest in his personal affairs.

The bank's staff was complete except for the absence of a "specialist in the art of making friends." Such a man was employed and put in charge of the out-of-town department. He reorganized everything, shattering rules and violating traditions. Then he turned his office into an information bureau for the accomodation of visitors. He studied the needs of the bank's correspondents, noted the subjects they were interested in, and had a pleasant word for every one who called. He acquired the "convention habit" and went wherever bankers congregated. That strengthened his connections and made his institution known throughout the United States. The effect was magical. Business poured in from all sections until the volume of out-of-town accounts surpassed all previous records.

That done the bank organized itself into "a financial department store." It advised correspondents that anything desired in New York could be obtained by telegraph without expense to the purchasers beyond the actual outlay. One correspondent bank reported a scarcity of female labor, and asked to have nine servant girls secured and shipped West at once. They went the next day. Another asked to have flowers sent to a friend aboard a departing steamer. That order was filled. A Western bank wanted its New York correspondent to intercede with the customs officials to expedite the arrival of a friend aboard an incoming steamer. It saved the traveler two hours' delay. Another bank requested that the New York institution attend to the comfort of a friend who was to undergo a serious operation at a hospital. That was done. Others sent dry goods to be exchanged, wanted the bank to buy wedding gifts, and to see to the transportation of friends from one railroad station to another. All these things involved the expense of money, labor, and energy. But they were worth while.

In the words of an officer of that bank: "It is true that we are willing to swap horses or to undertake any other commission for out-of-town correspondents. After all it is the old story of warm blood and common sense. The country banker is a human being. Big figures

will never catch him, for it matters little whether the institution that keeps his New York account has a huge mass of deposits or not. He knows that his funds will be just as safe in a bank having $600,000 capital and surplus as one that displays its wealth in eight numerals of heavy face type. A large surplus lacks the magnetism of a warm hand-shake.

"Now I am not an advocate of insincere methods or of the slightest departure from conservative banking principles. On the contrary, we never wittingly go beyond the safety point in accommodating out-of-town customers. But competition in banking has reached the stage where we can no longer sit still and wait for business to come to us. We have to go after it. While I am in favor of dignity in banking, I am not held down by tradition that forbids the adoption of methods that have proved successful in other branches of business. Wonderful changes have come in commercial methods during the last twenty years, and for the life of me I cannot see why twentieth-century bankers should insist upon doing business according to the methods of fifty years ago.

"So much for theory. Now as to the dollars-and-cents side of the story. We clear annually $500,000 a year in profits from out-of-town accounts. That is about $300,000 a year more than we formerly made, and it represents the value of kind words and of common-sense methods. Compared with net returns from other classes of business, this is largely in excess of what most banks make. Then, too, by paying interest on accounts we reduce the proposition to a business basis and are under obligations to no one. Our customers cannot demand certain privileges in return for large balances; the two per cent. allowance protecting us from all that. Of course, such business pays best on the basis of great volume, for the cost of handling fifteen hundred out-of-town accounts is relatively not much greater than the outlay for half that number. While the department store feature of banking may be troublesome, it yields, when well managed, very handsome returns."

All this shows that the commercial traveler in banking is becoming a necessity. In the institution that I have described he is one of its most valued officers. He goes to meetings of out-of-town bankers whenever they come to town; he looks over the assemblage and selects half a dozen "victims." These are appealed to with things less dry than statistics, and before the session is over two of the six have transferred their accounts to his bank. It is done quietly and without expense or ostentation. The result appears in ten times the outlay on dinners, drives and the theatre. Such conduct is still sneered at by the old-fashioned banker accustomed to the seclusion of a plate-glass partition without the necessity of going across the street for business. But Wall Street calls it modern banking.

When not on the road the commercial bank traveler finds plenty to do at the home office. He greets the visitor at the door with all the warmth of an old acquaintance. He keeps note of the bank's customers, their associations, their peculiarities and their family histories. He separates them into classes as they are entitled to first, second or third credit. He recognizes in the small man of today the millionaire of tomorrow, and he watches intently for the quick decision, the cool judgment and the business foresight which denote capacity to care properly for other people's money. Ability of this sort is worth a $10,000 salary to any bank that does not do its out-of-town business by last century's methods. I know a short, chubby-face man in New York who performs this work to perfection. Courteous and keen-witted, he takes human nature at its true valuation. With a few innocent questions he gets out of a man in five minutes what a commercial agency would require several pages to say. As soon as a country visitor has gone he calls his stenographer and dictates what he thinks of him. These notes are consulted in days of panic and in times of money stringency.

Two or three "financial department stores" are already preparing to operate branches. This is permitted by the New Jersey law. If plans that have been made are put into execution a great bank in New York or Chicago will multiply its influence tenfold through alliances with smaller institutions at a dozen interior points. This, it is believed, will afford the advantages of a financial irrigation scheme, insuring the ebb and flow of money with the requirements of supply and demand. Although experimental, the project is suggestive of the departures that may be ex-

pected when the new idea in banking has taken firm hold. In the large cities the "community-of-interest" plan of operating several banks, through a central institution, has been found effective. Although prohibited by law from maintaining branches, national banks are finding it profitable to have their directors secure control, through stock purchase, of various auxiliary institutions. In this way trust companies and banks sometimes pursue a common policy, with convenient shifting of loans and joint bids for underwriting proposals.

In the South and the West the ingenious system of auxiliary banks is used with excellent results to attract deposits from wage earners. This gives a bank or a trust company one branch in every family by the distribution of small steel safes for the reception of coin or chance savings. Under this arrangement institutions have secured thousands of new accounts. The scheme represents the kindergarten in banking, but long ago it passed the experimental stage.

But the great city bank is also strengthening its hold on out-of-town business through the extension of credit department facilities. This puts a country bank in telegraphic command of "credit detectives," who are familiar with the devices of dishonest merchants. When a country bank has been victimized into buying worthless paper or notes based on insufficient security, the details are wired to its New York correspondent. If the case is hopeless the facts are reported and proceedings are abandoned. But if there appears to be a fair chance of recovery, a settlement is forced by the threat of putting the note-maker in jail. This often results in the collection of the whole amount, or cutting a bad loss in two. Inasmuch as one half to three-fourths the liabilities of failed business concerns is said to represent obligations due to banks, the advantages of such credit investigations cannot be overestimated. Since Mr. James G. Cannon, Vice-President of the Fourth National Bank of New York, in a Philadelphia address delivered ten years ago called attention to the heavy losses sustained by banks which lent money on "hearsay evidence," most important institutions have organized credit departments. In numerous instances these departments have paid for themselves many times within a year.

Thousands of country banks are joined to city institutions by still another tie which the public knows very little about. In a small room at the rear of a great financial structure in New York a staff of men are constantly employed studying the work of forgers, check raisers and swindlers. When a little bank in the West cashes a forged draft, and the work shows the ear-marks of professionals a central office is notified. There a hurried conference is held and the case is put in shape for detectives. Within a few hours particulars are telegraphed to the agency nearest the point where the thieves have been operating, and the banks for miles around are put on guard.

I have tried to indicate the growing importance of the personal touch in modern banking. While many large banks would never go to the lengths that I have described in accommodating out-of-town customers, those that are making most headway do everything that they ask. A certain New York bank that obtains on the average one out-of-town account a day always has a guide ready to pilot strangers through the financial district. Such a small attention is gratefully remembered by the cashier on his wedding journey, and that bank is never likely to lose his account. It stands to reason that the bank which collects an insurance policy, attends to the burial of a dead friend, or in other ways exhibits a personal interest in a customer's affairs gets a hold upon its correspondents that it could not otherwise get. We hear of soulless corporations but never hear of a heartless bank. A heartless bank is a dead bank.

Every panic brings the banks nearer together. In this respect, too, the changes wrought in recent years have revolutionized old-time methods. When New York banks were first appealed to for mutual assistance in the effort to avoid disaster and to restore public confidence, the overtures were rejected and the "cut-throat policy" was pursued. Now, when a crash seems imminent, or the interest rate indicates general distrust, the clearing-house committee has the situation well in hand before the critical moment comes. When it arrives the loan pool fund is distributed and the interest rate drops. That is the way New York's banking system has been developed to the efficiency required by the exacting demands of an international money centre.

ARE THE CHURCHES DECLINING?

AN EXAMINATION OF STATISTICS WHICH SHOWS A SLACKENED RATE OF GAIN, AND IN SOME CHURCHES A POSITIVE LOSS—THE REASONS FOR IT

BY

CHARLES GRAVES

WE often hear that the day of the Christian church is fast waning and that it will cease to exist save as a relic of the past. And during the past two or three years, in representative gatherings of the leading Christian denominations, the questions of waning interest and declining strength have been discussed over and over again in all seriousness and sadness. From all parts of the country and from other countries, too, come reports of empty pews, a decrease of Sunday-school scholars, depleted treasuries, and a waning of religious enthusiasm. How to attract and to keep scholars in the Sunday-schools? how to get people young and old to attend church? these and questions of a like nature are constantly in the minds of the clergy. Showing how widespread and deep-rooted is this lack of religious interest, even in those who should most manifest it, the late Mr. Moody in his last great revivalistic campaign devoted most of his time to a reawakening of religious interest in church members themselves. All this goes to show that there is at least a feeling that the Christian church is not holding its own.

In discussing this question a great deal of unnecessary confusion has been caused by mistaking the Christian church for all sorts of benevolent enterprises and organizations; and the growth of kindness, of helpfulness, and of humane feeling and action throughout the world (taken to prove the growth of the Christian church) does not fall within the range of the present inquiry—but only the churches as organizations. The Christian church is but one of the many organizations—and "Christianity" is the principle of this organization—and we should measure its growth or its decline just as we should measure the growth or the decline of any other organization, by a study of its statistics and by such facts and conditions as indicate strength or weakness.

The Rev. Dr. Carroll, in his book "The Religious Forces of the United States" says, "Our churches almost without exception manifest the conditions of prosperity and growth. Year by year they add to their numbers. In some cases the percentage is large, in others small; but growth is the rule and decline the rare exception." This statement is true, but it is wholly misleading. It was made six or seven years ago and it is accepted today by many without question. But an examination of the facts upon which even Dr. Carroll based his statement will show that they hardly justify such hopeful words. In his book he has taken twenty-one churches or groups of churches "which embrace all Protestant communicants except about a million." Footing up the reports of these churches we have a total of 9,263,234 communicants in 1880 and 13,158,363 in 1890, an increase for the ten years of 3,895,129. Of this result Dr. Carroll says "The increase indicated is large, amounting to over 42 per cent. In the same period, ten years, the population increased at the rate of 24.86 per cent." This of course leaves a balance of 17.19 per cent. in favor of the churches. We are asked to understand by this that between 1880, and 1890 these churches grew 17 per cent. over and above the increase in population. But a moment's thought will show that the argument is wrong. By comparing the ratios of growth of a small organization with the ratios of growth of a large organization, the growth in the smaller body is greatly exaggerated. For example: an organization with a hundred members gains ten during the year; this is a gain of ten per cent. A neighboring organization has a thousand members and gains fifty during the year; this is a

gain of only five per cent. although the actual gain is five times as large. The way to find the true ratio of growth in these churches over and above the growth in population is not to compare the figures of these churches in 1890 with the figures of the same churches in 1880 as Dr. Carroll has done, nor the figures of 1900 with those of 1890 as the editors of *The Independent* have done (see *The Independent*, Vol. 53, pp. 48-49). The true way to find the ratio of growth over and above the growth of population is to show the proportion which the church members bear to the population at any given period. In 1880 the communicants of the churches named by Dr. Carroll were 18.4 per cent. of the total population, and in 1890 the communicants of the same churches were 21 per cent. of the total population—an actual gain upon the population of 2.6 per cent. instead of 17.19 per cent.

Now consider the situation between 1890 and 1900. The increase in the membership of these twenty-one churches or groups of churches during the last decade is a little more than 4,000,000, making a total membership at the close of 1900 of 17,250,000 in round numbers. In other words the membership of these churches is 22.72 per cent. of the total population as against 21 per cent. in 1890—a gain during the decade of 1.72 per cent. From 1880 to 1890 the membership of these churches gained 2.6 per cent. upon the total population and from 1890 to 1900 it gained 1.72 per cent. only, a decline in the rate of growth of almost one per cent. It appears from this that, while the churches do continue to gain in the number of communicants, the rate of increase becomes smaller.

Some have sought to explain this decline by saying that the statistics are not very reliable. Church statistics are very far from correct, and the churches themselves are to blame, but if the statistics were reliable the showing would be worse. We all know, who have anything to do with church affairs, that church statistics invariably err by including too much. In the Methodist statistics "probationers," counted since 1848 (see *Methodist Year Book*, 1901, p. 34), are counted as members, and yet "probationers" are not members of the church. The compilers of church statistics have no intention to be dishonest and incorrect, but it is a well-known fact that membership records are most carelessly kept. Sufficient care is taken to add new names but little attention is given to removing those that should no longer be there. Names of people long deceased are frequently found upon the rolls as members in good standing; others who have moved their residences and have united with other churches, perhaps of a different faith, are frequently counted as members in both churches or communions; and I have had many persons tell me that their names are on the roll of a church they do not attend and that they have repeatedly tried in vain to have their names erased. There are many others counted as communicants year after year whose names were written in the church books when they were children, or just after a "revival," who in word and deed disown church relationship.

Consider, for example, the figures of the Cumberland Presbyterian church for 1895 and 1896. During these two years there was a decrease of more than 31,000. In *The Independent* for January 7, 1897, this explanation is given: "Not an actual decrease for the years but due to corrector methods." That means that the Cumberland Presbyterian church found many names on its record that ought not to have been there. Further, the figures do not show the full number marked off. We have every reason to believe that during these years the church added a considerable number to its membership, so that the actual number of names dropped is 31,000 plus the new names added during that time. It would be altogether unjust to assume that the statistics of this denomination are more defective than all others. There can be little doubt that if the records of the churches were kept with accuracy the total membership would be much below the present figures.

It is frequently contended that in estimating the membership of the church we should include the members of the various young people's societies and other auxiliary organizations, and also those who, while refusing to identify themselves with the church, are devoted supporters of all its activities. There is perhaps a measure of truth in this contention. The young people's societies are to all intents and purposes, as are also the Sunday-schools, parts of the Christian organization. But it is very misleading to suppose that the membership of these societies should be added in full to the total church membership. A large number of the members of these societies

are also members of the church. And many of those who are not members of the church have joined these societies rather from social than religious motives. And what shall we say of these people, known as "adherents," who, while not members of the church, are faithful attendants and supporters of it? According to a chart prepared a year or so ago by the New York Baptist Society it appears that we are justified in assuming that there are two "adherents" for every communicant. But if the accounts of depleted treasuries and empty pews and the great lack of active helpers in church work which come from all quarters are to be trusted (and every clergyman knows that these stories are true), then it would seem that to assume two "adherents" to each communicant is an over-estimate. This suggests another question: Why are they not actual members? If the faithful *outside* supporters are to be reckoned as an actual part of the church population, must we not count [illegible] operating members?

All these considerations make it safe to assume that the present statistics do not understate the strength of the church.

An examination of the following table which gives the increase and the decrease, as reported by the different churches for the years named, will show that, while the churches continue to add to their membership, the rate of growth is decreasing.

It will be noticed that with few exceptions (and these are not free from suspicion), there is little to break the gradual and, in some instances, rapid decline in the rate of growth. Compare the figures of 1900 with those of 1895, and the difference is at once surprising and significant. Were it not for the evidently exaggerated increase of the Regular Baptists in 1898 and the generally larger gains of 1900, which are easily accounted for, the total of each column would show that the falling off is the rule. The figures of 1900 show a more hopeful result for some churches. The Lutheran and the Methodist churches and a few others have made substantial gains, but it should be remembered that very unusual efforts were put forth during the year to have a "great ingathering of souls." The Methodist church pledged itself to "win a million souls for Christ," and other churches were pledged to make exceptional efforts to the same end. The larger gains recorded are undoubtedly the result of these extraordinary efforts. Taken all in all the foregoing table reveals decline.

This state of affairs is recognized and admitted by leading men in the different denominations. Dr. Burrows of the Regular Baptist Church, South, says: "The year 1899 has not been noted for any great increase in membership of the churches." Dr. Dunning, speaking for the Congregationalist church, says that the statistics show "that the denom-

THE INCREASE OR THE DECREASE IN THE MEMBERSHIP OF DIFFERENT CHURCHES OVER A PERIOD OF YEARS

	For 4 years ending 1894	1895	1896	1897	1898	1899	1900
Baptist Regular Bodies	[illegible]	[illegible]	[illegible]	[illegible]	204,472	86,189	11,425
Baptist Freewill	[illegible]	[illegible]	[illegible]	[illegible]	-11,930	-6,739	- 133
Congregational	[illegible]	[illegible]	[illegible]	[illegible]	2,370	1,640	1,640
Disciples	[illegible]	[illegible]	[illegible]	[illegible]	34,536	32,781	31,586
Dunkards	[illegible]	[illegible]	[illegible]	[illegible]	8,000	- 500	2,787
Episcopal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16,849
Episcopal Reformed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	00,000	00,000
Evangelical Association	[illegible]	- 554	[illegible]	[illegible]	[illegible]	899	1,252
Friends	[illegible]	[illegible]	2,516	[illegible]	1,152	270	- 476
Lutherans	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31,266	88,214
Methodist Episcopal	[illegible]	81,641	[illegible]	[illegible]	[illegible]	-3,747	18,727
Methodist E. South	[illegible]	279,259	[illegible]	[illegible]	[illegible]	-2,073	6,072
Other Methodists	123,234	46,718	57,744	44,993	-24,320	38,871	27,530
Moravians	118,639	171,463	111,526	23,232	52,849	139	296
Presbyterian North	754	358	641	606	162	6,392	12,099
Presbyterian South	88,296	26,237	20,758	15,784	15,643	3,947	4,868
Presbyterian Cumberland	19,446	4,832	6,540	1,155	5,381	9,947	6,390
Presbyterian Others	32,448	-3,915	-27,540	23,045	26,743	-1,840	2,827
Reformed Dutch	2,316	15,721	1,595	10,168	4,472	-3,521	5,927
Reformed German	?34,698	10,146	6,639	8,750	-4,209	-20,960	5,504
United Brethren	20,437	17,232	8,085	9,082	5,823		
TOTAL	1,211,482	905,116	493,101	372,537	434,643	232,319	237,603

[illegible]crease; x increase for 2 years; ? returns doubtful; * figures include foreign fields.

[illegible]es receive a great many additions from the flood of immigrants constantly pouring into the country. Many of them are church [illegible] old home and soon as they are settled here they unite with the church of their faith. In the statistics these additions appear [illegible]tian church. But no new recruit has been added to the Christian army. To measure the actual gain of the churches [illegible]ld these gains by immigration must be deducted.

ination is making little progress temporarily, even in some respects retrograding." Rev. S. P. Spreng of the Evangelical Alliance confesses that "the year has not been one of extraordinary numerical increase. Indeed, the increase is extraordinary for its smallness." Dr. Carroll begins his summary of the Methodist church by saying: "The Methodist Episcopal church was prosperous in everything in 1899, except in the most important item of all—increase of communicants." And further on he remarks: "The net gain of most of the churches, even the Catholic, approached the vanishing point." And, "apparently the number of conversions is diminishing." Dr. Roberts adds a similar testimony: "The Presbyterian church in the United States of America makes a steady progress, though not so rapid as in former years. The real reason appears to be the lack of spiritual vigor in all the Christian denominations, for other churches in the United States than the Presbyterian report decided decreases in addition to membership."

The report of the Sunday-school Union in England shows a similar condition of affairs. The Established church shows a decrease of 7,000 scholars; the Wesleyan Methodist a decrease of 5,400; the Baptist churches have a decrease of 7,000; the Presbyterian, 1,400; and the Free church of Scotland has a decrease of 4,300. There are one or two points in this report that deserve to be thoughtfully noticed. "All Sunday-school figures," it says, "must be taken with reservation. Every child entered upon the books up to the latest day is counted, while many are also counted who have ceased to attend for months. All the churches must, therefore, take a liberal discount off their figures." It requires only a slight familiarity with Sunday-school work to know that if the rolls were kept half as carefully as the day-school rolls are kept, the figures would be materially reduced. The report also points out that "but for the considerable influx of infants the decrease would have been 17,000 in one denomination alone;" while the figures of the other denominations show that seventy-five per cent. of the decrease is caused by the "dropping out of scholars above the age of fifteen." The Wesleyan figures show that of a total decrease of 5,380 no less than 4,300 are scholars above fifteen years of age. "It comes to this, that while the mothers of the small children are as ready as ever to send them, very often for their own convenience, we are losing our elder boys and girls at the most formative period of life." Thus it appears that both young and old are drifting away from the churches.

In many churches the controlling interest is social. Clubs, suppers, entertainments of all sorts are among the chief attractions and each year claim a more prominent place in church activities. But for these social activities many persons would cease their connection with the churches. In order to pay running expenses many churches must have fairs, suppers and entertainments of all sorts. In building churches as much care is bestowed upon the dining-room and the kitchen as upon any other part, and in some there is a stage for private theatricals. All these incidents go to show how difficult it is for the churches to hold their own.

As for explanations—on the one hand it is contended that the churches are losing ground because they are too orthodox; and on the other hand the lack of orthodoxy is given as the primary cause of decline. Take first the claim that the Christian church is declining because it is too orthodox. The Congregational church is admittedly one of the least orthodox of the denominations, nor is the orthodoxy of the Episcopal church among the strictest. Yet the Congregational church from a gain of 19,000 in 1895 fell to a gain of less than 2,000 in 1900. Only three times since 1857 has the gain of membership in this church been as low as at the present time, and never has there been such a steady falling off as has occurred since 1894—the banner year of its history.* The Episcopal church, which attracts by its social prestige, shows nevertheless a very steady decrease in yearly gains. At the last General Convention it was reported that there

* Dr. Beard, in an address a year or more ago, said of the *Congregational Year Book* for 1900: "There is not a cheerful page in it. In it we learn that through the efforts of 630,000 members, with a cash outlay of $7,000,000 for home expenses, there was received during the twelve months a net addition of 1640." In Massachusetts, with a membership of 113,000 and a cash outlay for home expenses of $1,650,000, there was during that year an actual loss of 588 members. At the National Council lately held in Portland, Me., there was reported a net loss for the triennial period of 32,103 members in the Christian Endeavor societies.

were 3,896 fewer confirmations and 13,832 fewer baptisms during the three years then ending as compared with the previous three years' period. It thus appears that to be of "liberal' orthodoxy is not to insure success.

How stands it on the other hand? Are those churches also declining that show no great departure from the old orthodoxy? The Methodist statistics may be allowed to furnish the answer; for this church can hardly be accused of non-orthodoxy. Some of its ministers may be guilty of "leaning toward Unitarianism," and the higher criticism may give a less dogmatic tone to some of its pulpits, but at the last General Conference the church refused to change its discipline in favor of "liberalism." Its leaders stand for "historic Methodism." In 1895, the church reported an increase of 279,259 members; in 1896 the increase was only 45,000; in 1897 it was 14,000; in 1898 it had fallen to 12,000, and in 1899 there was an actual decrease of nearly 4,000. Last year a substantial gain is reported, but when we remember that this gain is the result of extraordinary efforts it has not the meaning that it would have were it the result of normal conditions. It is plain that this church, which can hardly be matched for its good management and which is orthodox, is gradually losing ground. We must conclude then that neither orthodoxy nor the lack of it is the secret of the churches' decline. The explanation must be sought in other reasons.

ADVENTURES IN WILD-LIFE PHOTOGRAPHY

THE STORY OF MR. W. E. CARLIN'S SUCCESSFUL CAMERA-HUNTING FOR BIG GAME AND LITTLE IN IDAHO AND FLORIDA

BY

BERNARD MEIKLEJOHN

A NOTABLE achievement in wild animal photography has been performed by Mr. William E. Carlin who spent the summer of 1897 in the Clearwater country of Idaho hunting with the camera. Accompanied by W. H. Wright, who served as guide, Mr. Carlin camped all the summer along the Clearwater River, tramping the country every day, waiting hour after hour and spoiling plate after plate to "catch" some little rodent, stalking deer through the underbrush, and following trappers' lines for lynxes; working with indefatigable patience and inexhaustible fertility of resource. The result was a series of pictures that can hardly be surpassed.

First Mr. Carlin photographed white tail deer. When he and Wright sighted a herd browsing on the sprouting buds along the river, they cautiously dragged the heavy apparatus through the brush to focussing distance. Often at that juncture the deer broke away with a start and a snort, but presently it became less difficult with practice to approach unseen, and then Mr. Carlin got some satisfactory plates. When the camera was focussed, he whistled sharply. The deer looked up. The shutter snapped. There was a single "whoof," a quick thud on the ground, and then a terrified deer sailing down the valley in thirty-foot jumps. Again and again was this procedure followed—though once there came a sudden break in the success of the method. He was creeping through a low growth of quaking aspens to a sheltering rock just ahead, when a great buck reared from behind it, placed his fore-feet on the rock and looked over at him, his antlers, proudly thrown up, outlining their splendid curves against the sky. For a second it was superb. But a moment later there was only a streak of deer a half-mile away, occasionally touching the ground but mostly just soaring. The best pictures, like the biggest fish, usually get away.

The flash-light pictures at night were taken

ABOUT TO DEPART
A white-tail deer in readiness to flee

from a canoe. When alone Mr. Carlin had a jack-lantern strapped to one shoulder, a hand-camera hung breast high by a thong around his neck, and a sort of mortar-board for the flash-light powder, much like the lamp of the Statue of Liberty. Imagine Liberty squeezing a bulb which sets off a cap which in turn sets off some powder in her lamp; that is what the flash-light apparatus was like. When Wright, the guide, and Herrick, the cook, were along, one of them managed the paddle and the other the jack, but the photographer always took the powder.

Noiselessly they stole along the river, flashing the jack from side to side till they caught the green shine of eyes. Nearer and nearer they glided. Softly Mr. Carlin took off the cap of the lens. Then a quick squeeze with his right hand holding the mortar-board high, a white glare, a statuesque deer standing frozen with astonishment, night again, a snort, a splash, a crash in the underbrush and it was over. Once, however, he caught the same deer twice; the picture is given herewith. He had "snapped" her once, and there had been but a single leap and then silence. What did it mean? Quickly he set off another flash. There, some thirty feet back from the brink was the doe, staring back wide-eyed and listening with ears aflare.

That night, too, he had had the rare fortune to lay his hand on a buck. Suddenly, as they drifted down the easy current without a sound, a great something loomed out of the night, swimming straight at them. Before they had time to think, he had reached the canoe, and was driving into it blindly. Mr. Carlin leaned, gave the buck's neck a resounding slap and shouted. The startled beast lurched almost out of the water. Then as he shot in a bee line for the shore, they played the jack on him till he scuttered through the lily pads and cannoned into the bushes and away. If it had not been for the excitement they could easily have photographed him, and indeed all the work of "taking" the deer had more play in it than toil.

Nor was it harder to "take" the lynxes. First trapping one, not a difficult matter, in a trap attached to a light pine-top drag, they

WHITE-TAIL DEER

This is the second successful flashlight of the same animal

FLORIDA OPOSSUM
Brought out in the daytime by baiting. Coming for the fish-tail on the log

go through the brush till the drag
he handsome beast up short. They
with dogs till they caught up with
ling creature, and then, planting the
a yard from his face, Mr. Carlin
till the lynx set back his ears and
ugly. At that moment he was
d." It went against the grain to kill
erward, but as "lynxes is varmints,"
d trapper used to say, they had to.
none of the larger animals required the
and endurance demanded by the little
hat dwelt in the great meadow plateaus
ountains. The ground squirrels simply
ith the party, swarmed over the camp
gnawed at the meal bags in the early
g and often obligingly sat up to have
ctures taken. But the little chief hare,
, with its demure Chinese expression,
tiny long-nosed shrew, kept Mr. Car-
ing day after day and week after week
he finally photographed them. Of
he worked in businesslike fashion,
up at dawn and taking the films from
er trough where they had lain all night,
g the valleys all day for whatever
up, and developing at night, so that
not say he tried six weeks for the pika
picture is given here, yet for that space
it was the quest of it that lay on his
For hours he sat on the ground and
smoked, with a camera focussed on

FLYING SQUIRREL
Taken in New York State

WHITE-TAIL DEER

not twenty feet away was a reddish brown sinuous shape with beady eyes—a weasel. With a shout he was frightened into a hole, and then, after focussing the camera on the hole, Mr. Carlin waited—five minutes, ten minutes, twenty minutes, a half-hour, until a pointed nose and a pair of red eyes preceded the weasel out of the hole an hour and a quarter after he had entered. Forthwith he was "snapped": his picture is given, taken at a distance of twenty feet. A week later the hare succumbed. The shrew was cornered at last with the aid of four men and a dog.

In this manner Mr. Carlin worked all summer. He had no special plan, but simply scoured the valleys and hillsides, tracking everything that moved, chasing 'coons into trees, waiting hours by some furry thing's domicile, following Long's trapping circuit to see what game for the camera his traps afforded, until the fever of the sport rose so high that when he came out of the Bitter Root country that fall he went with Wright to Florida to continue photographing. There, with methods perfected by experience and thoroughly converted to the telephoto lens, he put into practice a trick he had learned along the Clearwater.

Many animals he had "caught" by baiting—laying food in the same place every day.

STARTLED DEER
She hears a whistle across the creek

'COON
Chased into a tree by dogs

lorida he baited an opossum at his nor-
nocturnal feeding hours, and then gradu-
made the hour of feeding later and later

LITTLE CHIEF HARE
Sunning on a rock in the mountains

till he had the little fellow coming at ten o'clock in the morning, in the full glare of the sunshine. It took many weeks thus to change a congenital habit, but he found that this method of baiting a night-roaming animal later and later till the light was strong enough for a photograph notably widened the field of his possibilities.

He "caught" snakes and birds and alligators. He came north to New York State and photographed there, always learning more about the habits of the creatures and the way to get their pictures. No longer did he spoil four dozen plates to get four pictures —his usual average in the Bitter Roots, where he had made a record of a hundred exposures for a single successful picture of a wood-rat. The animals still persisted in getting out of focus, but the perfection of the

WHITE-TAIL DEER
Browsing on the bank of the Clearwater

WEASEL
After a wait of an hour and a quarter he crawled out before the focussed camera

telephoto camera allowed him to focus farther and farther away from his "sitter" with a decreasing chance of frightening it, and he hopes soon to go back to Idaho and "get" a thousand things he knows he can still discover there despite the gradual thinning out of game, for he learned in Florida that if one method of getting a picture will not serve another will, as an incident will show.

There lived along Elk Summit Creek two kingfishers whose habit was to fly down stream every morning to perch on three stumps by the water. About those stumps

FLASHLIGHT OF A DEER

they were very impartial. He focussed on one—and that day they preened and fussed and screamed on the other two. He tried another and they showed an almost diabolical preference for the stump they had tabooed the day before. Each day, of many days, they left him sweating and fuming impotently with his telephoto lens staring stupidly at just the one stump that on that particular day they scorned, while they sailed off up river with screams of rattling laughter. He

WHITE-FOOTED DEER-MOUSE
Lived in camp in the Bitter-root mountains

cogitated. The next morning two lusty Negroes were dispatched to cut down two of the stumps, and about the time the birds arrived he was cozily ensconced with the camera pointed at the solitary stump remaining.

They came—very jauntily. They wheeled about for the stumps in a flutter of blue and white plumage. They saw. For a full minute the air was filled with raucous kingfisher profanity. How they swore! Slowly the noise grew less and less, and gradually they settled angrily to the single stump. Click! The battle was won.

SHREW
Cornered by four men and a dog

FACADE, MAIN GROUP

RICHLY ENDOWED STANFORD UNIVERSITY

THE ACADEMIC AND ARCHITECTURAL PLANS OF THE FREE CALIFORNIAN INSTITUTION, WHICH IS MORE LIBERALLY PROVIDED FOR THAN ANY OTHER IN THE COUNTRY

BY

WILL IRWIN

Illustrated from photographs by W. J. Street and R. E. Warfield

MRS. JANE L. STANFORD recently transferred to the Leland Stanford Jr. University property which is thought to make it the richest educational institution in this country, and one of the best endowed in the world. In the ten years since it was founded it has grown from a much-advertised little college of four hundred students to one among the large institutions. No college has gone through a pluckier struggle. For six years there was a hard fight day by day to keep its doors open.

When Senator Leland Stanford died in 1893, the institution had been open for nearly two years, and there were about seven hundred students and nearly a hundred professors and instructors. The great building .me, of which the inner quadrangle and the nitories then finished formed but a small part, was to be completed. Dr. Jordan, the president, often referred regretfully to the time he could telegraph to any of the older institutions making a famous scholar a liberal offer. In the first year Ex-President Harrison came across the continent to lecture before the new law department. Throughout the country, and especially throughout California, it was thought that Stanford University would never lack money. All this was changed in a day.

Senator Stanford in his lifetime had given a moderately large endowment, all in farming lands. In his will he provided for a permanent cash endowment of two and a half millions, from an estate bequeathed to the widow, who was to devote her money eventually to the university. Almost at once came the hard times of 1893. The endowment lands became non-productive. Even when the property should come through the probate courts, there were the minor bequests to be paid off. University expenses accordingly

THE GROUNDS AROUND THE MAUSOLEUM

Here are buried Leland Stanford and Leland Stanford, Jr.

LOVER'S LANE

were cut to the lowest notch, and plans abandoned; "for a year only" said the heads of the university. Then, almost without warning, the Government brought a fifteen-million-dollar suit against the Stanford estate for the old, expired debts of the Pacific railroad kings, the "Big Four" who founded the Southern Pacific system. Had the Government won, Stanford would have been doomed. Even as it was, with the property tied up, no money was coming in. But the courts based their allowance to Mrs. Stanford for personal expenses upon her scale of living in the days when Mr. Stanford was Governor, and she a leader of society in San Francisco. It was made $150,000 a year. The university salaries alone amounted to $185,000. Thirty-five thousand dollars a year and more must be made up while the estate lay in the courts.

It was accomplished. Salaries were cut, and a "registration fee" of ten dollars a term was collected from every student, though the articles of incorporation provided that tuition should for all time be free. For the next two years, every cent that could be raised from every possible source was turned into the university treasury, and every cent of expenditure was strictly watched. The professors, living on reduced incomes, were buying their new books themselves. Mrs. Stanford, nominally spending $150,000 a year, was really living on a hundred dollars a month. Once she prepared to sell her jewels, but they were finally saved to be used as a last resort, though since the return of good fortune she has sold them to build the new Memorial Church. It was even determined at one time to cut down the number of students and instructors by half, though this, too, was abandoned.

The professors in that trying time stood by the school as nobly as Mrs. Stanford. To several came good offers from the East, to most of them at the time of life when promotion is most prized. Doctor Jordan himself had opportunities to double his salary and possibly his influence. Yet not a man deserted. At one time salaries were unpaid for two months. At that stage a few hundred dollars strayed in from some unexpected source, and it was divided pro rata. When the cloud lifted, some of the recipients of offers accepted them. The final issue of the case came in the United States Supreme

THE APPROACH TO THE UNIVERSITY

Court. President Cleveland requested that it be taken up out of order and gained his point, at the moment when Stanford had reached its hardest times, and when further delay would have equalled an adverse decision, and closed the university.

On March 2, 1896, the news was received at Palo Alto that the Supreme Court had decided that the Government had no claim on the estate. The drizzly morning when the telegram was brought to the quadrangle was the wildest, maddest day in the history of the university. Classes were stampeded; students and professors marched in procession around the quadrangle; and instruction was adjourned for two days. Yet until 1899 the closest financiering, the most careful management were required. This task was complicated by the state of affairs in the Southern Pacific company. In the end, the Stanford interests drew out of the Southern Pacific and invested in Government securities. By the summer of 1898, the university's future was assured. Moreover, Thomas Welton Stanford, an Australian multi-millionaire and brother of Leland, used his inheritance from the estate in building a new library. "I have been through such an experience as never before fell to any university president," said Doctor Jordan after it was all over. "I had all that I wanted for two years; then poverty for nearly six; and then wealth again." Building began again at once, and will be continued for two years more. Until it is finished the plans for the greater university cannot be set afoot.

NORTH TOWER — Inner triangle

The buildings are of buff sandstone in a modified style of the old Mission architecture of California, with arches and corridors and covered passageways. The inner quadrangle is the most beautiful part. On the longest side, it runs in two six-hundred-foot stretches of arched arcades capped at the side entrances

THE UNIVERSITY CAMPUS FROM THE HILLS

THE CHAPEL

by fairy towers in the Mission style. The light buff sandstone is now softening into yellow through the influence of years; the roofs are tiled in red. The enclosed space of two and a half acres is studded with beds of palms, bamboos and other semi-tropical plants, giving to the corridors, in the moonlight, a dreamy, fairyland aspect. Around this is now growing up the larger university. Five new buildings have been completed. Nine more are in course of construction and will be open for use when the next college year begins, while six more, two of them very important in the plan, will be under way by the coming summer. The approximate cost of the whole building scheme will be not far from three million dollars. It provides for all the departments outlined in the plans for the future Stanford.

Briefly, Stanford University, following Mr. Stanford's idea, makes training for usefulness in life its end. Usefulness through high scholarship is the keynote of the plan as interpreted by Doctor Jordan. There are no honorary degrees. In granting the regular degrees no distinction is made between course and course. A Stanford Bachelor of Arts may have gained his degree for work in Greek or in Chemistry or in Steam Engineering or in Economics or in Biology. There is no comparative scholarship ranking. There are no ceremonial observances. And there are as few rules as possible. Until recently, when some of the women students adopted the custom under mild protest, there were no caps and

THE ROOFS OF BUILDINGS IN THE OUTER QUADRANGLE
Showing arcade arrangement

gowns at Stanford commencements. Even the diplomas are little squares of sheepskin printed in English and certifying in business-like terms fulfilment of requirements.

The scheme of instruction is broadly elective along a peculiar line, planned after conference with some of the clearest-sighted university authorities, among them President Eliot of Harvard. Each student must register, on matriculation, in some one department. The head of that department requires him to take one-third of his courses in the department. The other two-thirds are elective under advice. In the English department for example, there must be so much study on the sources of the English language, so much in composition, so much in each of the periods of English literature, so much in the history of the English language as a whole. Other courses are taken according to individual needs.

The work is exacting: probably Stanford turns away annually a greater percentage of students for deficiency in scholarship than any other institution of its rank. "Some of the older universities," says Doctor Jordan, "tolerate three hundred men among their students who are getting nothing out of their college course, simply because these men are paying into the college treasury some fifty thousand dollars a year in tuition fees. We do not collect fees, and I see no reason for such toleration here." The entrance requirements, which began low, have been gradually raised.

With nearly unlimited means at command, Stanford is to be built up in future in the post-graduate and professional schools. It is to be a post-graduate university, somewhat after the plan of Johns Hopkins. The present number of twelve hundred undergraduates may be allowed to expand to two thousand or more, but the energy and the surplus funds when the buildings have been finished will go to encourage higher scholarship. The undergraduate field is to be left very largely to the University of California. A Law School two years old and developed from an undergraduate department is the only strictly professional school at Stanford now. The medical school and the post-graduate medical school are to come later. In pursuit of this plan, a library to hold a million volumes is building.

Stanford is an out-of-doors college. Around the campus lies a broad estate of nine thousand acres, all university domain. Three miles to the front lies San Francisco bay and behind roll the foothills, green in autumn and winter as are all California hills, yellow in late spring, brown and dry in midsummer. Between the

THE CAMPUS FROM THE REAR

arch and the gate opening on Palo Alto lies a mile of forest artificially planted except for some old oaks native to the soil. One of the curiosities is an avenue of infant sequoias, the giant trees of California. No shooting is allowed. Quail whistle under the windows of

PRESIDENT DAVID STARR JORDAN
Of the Leland-Stanford University

recitation rooms; the mornings are melodious with the songs of meadow-larks; jack-rabbits running from dogs trail cross the field during football practice; coyotes have even come down from the hills and serenaded the dormitories. Deer can be killed within twelve miles of the campus.

This isolation has bred a peculiarly delightful student life. Women from the first have been admitted on equal terms with the men, although a rule, never enforced, limits their number to five hundred. The poor student is the rule. About one-third of the men support themselves wholly or in part, and fully one-half of the whole student body work in the summer vacation. Thus traditions are most democratic. The man who waits on the table at the Stanford Inn goes out afterward to sing on the steps with the men whom he has just served. One football captain who held many honors was a waiter for three years. The baseball captain of the same year ran a student transfer business. The fraternities object to manual labor by their members; otherwise no Stanford student finds that work affects his social standing. In athletics there is but one real rival, the University of California, although Nevada and Oregon make an occasional visit.

When the students in the early days wanted a daily paper they bought the printing outfit on credit and paid for it out of the earnings. The men on the earlier track teams turned out with spades and picks and made their own cinder paths. Of the first football team only three members had seen the game played before the day they defeated the University of California. They learned football out of the directions in the official guide. Relations between the faculty and the students were such that every senior called at least one professor by his first name. The fraternities were few. From that time have grown a few peculiar customs. One is the wearing of the broad-brimmed sombrero by the senior class. Another is the junior "plug," a battered, highly decorated gray hat —copied from the University of California— which is donned at a ceremonial bonfire. Twice a year the women have among themselves a fancy dress party, wherein half the guests dress as men. At the present time activities are less rough than formerly and probably more civilized. There is less intimacy between students and professors. There are more fraternities, more social affairs, strictly college functions. Co-education, given full swing, has worked well.

Upon one point, however, Stanford has met some serious criticism: there has been an amazing number of weddings, the result of undergraduate attachments. The authorities, believing that "girling," as it is called, is infinitely better than that other college custom known as "beering up," have taken no special means to curb the tendency, except where it interferes with scholarship.

Approximately the Stanford endowment is $30,000,000. During Mrs. Stanford's life it will remain under her control, though she could not take back any of the gift, even if she so desired. Government bonds make up eighteen millions of this property. Shares of the Pacific Improvement Company, a large real estate corporation, make up between four and five millions. The value of the buildings now erected is about two millions. The rest is mostly in lands, including the largest vineyard and one of the largest wheat ranches in California. By a recent action of the people of California, voted through the referendum at a general election, most of the property is exempt from taxation. Thomas Welton Stanford has promised to leave his fortune to the university. This has been widely estimated at from $2,000,000 to $3,000,000. The chief expectation of increased wealth, however, is the rise in value of the endowment lands. Most of the great wealth belonging to Oxford and Cambridge has come through a rise in land values. The Stanford lands are in a growing section, and they may multiply in value several times before the moss is gray on the new quadrangles.

PRESIDENT JORDAN OF STANFORD UNIVERSITY

BY

F. B. MILLARD

"I OWE my success as a college president," said Doctor David Starr Jordan, "to the fact that I never have wanted to be a college president."

"That sounds odd, doesn't it?" he went on. "But it's true. If you have ever seen a fussy old granny at the head of a university—a man whirled about by affairs great and small, one who, in the end, lets detail drown him—you will know what I mean. When I came here I stipulated with Senator Stanford—in fact, he proposed it—that I never should do anything that I could hire done."

"Poise" is the word that represents President Jordan's chief characteristic. By many he is regarded as the most important man in California. He is thought to have broken loose from what are considered the narrowing traditions of the East, and to have become essentially Western.

Going from a farm near Gainesville, New York, to Cornell University, in 1868, he became a member of the pioneer class of that university. To pay his way through college he waited on the table, husked corn and dug ditches. "A young man with good health and good habits is not worth educating if he can't get through college in that way," declares Doctor Jordan. The study he liked best was botany, and when he found himself in charge of an herbarium, the office with its petty stipend was a great joy to him. He became an instructor in botany while he was a junior. His work and his strong personality attracted the attention of President White, who became his life-long friend.

After his graduation Doctor Jordan became an ardent naturalist. He went with Agassiz to Penikese, where the great science teacher instructed a little Harvard class in the great book of Nature. Jordan always accounts himself extremely fortunate to have been one of that favored school. He tells his students today that the greatest university in America was held in an old barn on the little islet of Penikese. "It lasted but three months," he says, "and in effect had but one teacher.

That school existed in the personal presence of Agassiz. When he died it vanished."

From the first of his natural science studies Doctor Jordan became profoundly interested in fishes. To perfect himself in this course of study he has traveled more than 200,000 miles, going all over the globe. He knows more about fishes, perhaps, than any other living man, and is especially well informed regarding their geographical distribution. "I have worked harder at this," he says, "because less was known of it than of other branches of the study." A few years ago he nearly ruined his eyes in the mechanical work of reading the proofs of his great volumes on this subject. He has spent many months in Japan jotting down the results of close studies there of which he has written in "The Origin of the Fishes of Japan." His connection with the United States Fish Commission began in 1877. He traveled to the Arctic, where he studied the fur seal; he went to the isles of the great Gulf and of the South Seas, and sailed to the Orient. But while these studies claimed years of his life, science has not dried or narrowed him. There still remains human sympathy; and to literature, to art, and to real religion he is truly devoted.

In 1879 he became Professor of Zoölogy in the Indiana University. He had intended to devote his life wholly to science, but when the presidency became suddenly vacant, Professor Jordan, the youngest member of the faculty, found himself chosen to fill it.

"I didn't want the place," he told me. "On the day I took it, I sent in my resignation to take effect in six months; but I had to stay six years. I never wanted to be a college president, but more of that sort of thing was in store for me than I had dreamed. One day Mr. Stanford came to Bloomington. I had never seen him before and he had never seen me. He was looking for a man to take the presidency of his new university. Would I accept it? I liked Mr. Stanford's ways at once. I knew he was a broad man; and I liked California. The result was that I accepted. Afterward I found that I was indebted in a way to Doctor White for the offer. Senator Stanford liked Cornell and its methods and he wanted a Cornell man. President White recommended me."

Resolute, full of high faith and purpose, Doctor Jordan came to California. "When in the spring of 1891 I entered the president's office at the new university," said he, "the founder turned over to me a large trunk full of applications for positions in the faculty from all over the world. He told me that I could do as I pleased about them. I was glad he had no preferences. I selected my men chiefly from Cornell and Indiana. Each appointment was a surprise to the man who received it. As for the appeals for position, I never knew from whom they came. The trunk was never opened."

On assuming his office the new president worked very hard. There was a strong prejudice against Senator Stanford among the people, as he was one of the railroad monopolists known as the Southern Pacific Company. This prejudice, so far as it touched the university, Doctor Jordan had to overcome. He went courageously to his work. Californians hate indirection and despise condescension. Doctor Jordan says things directly. His conclusions often strike the careful observer as inspirations rather than as logical deductions. This faculty, together with his commanding presence, his ease of manner and speech won people. He laid much stress upon physical health and purity. He recommended athletics and out-of-door living. He had the sense to discuss matters the plain people could understand and appreciate. "That's the college I want my boy to go to," said the Fresno County farmer, "where he can hear about the benefits of a clean life, and keep up his muscle while he is stuffing his head."

But President Jordan was accused of self-advertising. He did not reply. An advertisement of himself was an advertisement for his college. Everybody in California today knows that it is not that great group of buildings that attracts hundreds of students to Stanford. It is not the climate. It is the man. He has battled with conditions that would have discouraged many a lesser man. Early in his administration came the dark days of Stanford. He fought through them successfully.

Senator Stanford's policy of having the head of the faculty do nothing that can be done by others has been closely followed. A Committee of Affairs decides upon every question that is not of large importance, leaving Doctor Jordan freer from details than any other college president in the country. For that reason

he travels much. He has climbed the Matterhorn, walked under the Cuban palms, paddled a canoe on the Yukon, bathed in the surf of the South Sea Islands, waded in the streams of Japan, bicycled about in California, walked over the desert trails of Mexico and, in fact, has been everywhere. A few years ago he climbed to the top of the enchanted Mesa, in Arizona. He has taken the most remarkable automobile ride yet recorded in this country—from San José, California, to the summit of Mt. Hamilton, when, in twenty miles, his machine pulled up a slope of 4,000 feet.

"Jordan is always into everything big," is what is said of him. Few college presidents for instance, would dream of such a thing as interviewing for a newspaper even so prominent a man as Lord Charles Beresford, but when Lord Charles came from China to San Francisco, Doctor Jordan, who is a close student and very severe critic of our foreign policy, drew from the Englishman the most important information as to the "Open Door" ever published in an American paper.

No teacher employs more simple, forceful methods. He addresses himself to the vital points, and whenever he can do so he lets his subject speak for itself. If the lecture be about fish he is likely to appear in an apron beside a barrel of live specimens, and dipping his bared arm down into the water, flash before the eyes of his pupils an example of his subject. His faith in athletics is firm and abiding. Once every year he plays at first base in the faculty's ball game. He has also played with the students. He loves the woods and wilds and has only tolerance for towns. He is as appreciative as John Muir of elemental blessedness. He does not mind walking abroad in the dark or in the rain.

At the time of the Ross case, and the subsequent defections from the faculty, he received the blow calmly and to each new threat of revolt appeared impassive and stoical; but all the while the spirit of loyalty, apparently without the slightest impetus from the president, was slowly rallying. Soon it gathered force and finally such enthusiasm as it had never known before. To outsiders this rally still remains a mystery. But those closest to Doctor Jordan understand it well. The faith of the man in himself, and in human nature, coupled with his sheer power for cohesion won.

The students of no other university in the country exhibit greater admiration for their president than is shown by the Stanford undergraduates. Doctor Jordan, always one of them, in the football field and everywhere, fraternal without patronage, amiable without condescension, enjoys the designation of "All-Star" Jordan. He aims at no academic precision of speech. He is careless in dress, his clothes hanging loosely on his big, heavy body. His figure is erect, with a bare suggestion of a stoop in his shoulders. When not abroad he is one of those early-rising, late-sitting students for whom the day is not half long enough. After-dinner speaking is his especial aversion. "There are so many new books," I heard him say one day, "that I wish I had an able-bodied man to do my reading for me."

Some of his platform dicta have been treasured up by many Western educators. Here are a few of them:

"You can't fasten a five-thousand dollar education upon a fifty-cent boy."

"The football field is safer for young men than the ballroom."

When Collis P. Huntington declared that college men were poor business men and that the masses were overeducated Jordan replied: "If an educated man is unfitted to take a practical hold on life he is not worth educating, or the education is a misfit."

"The remedy for oppression is to have strong men who cannot be oppressed."

"The problem of life is not to make life easier, but to make men stronger."

"I dislike Theosophy, Christian Science, Socialism, Mysticism and free silver—anything based on sentimentalism—half-baked schemes of reforming the world. I don't like reasoning from analogy and I draw the line between stories for children and those based on scientific facts. I am more tolerant of orthodoxy than of the fantastic vaunts of heterodoxy. I don't like to live in a city, but near one."

Being possessed of a bright fancy and much humor, Doctor Jordan could have done good literary work if science had not claimed his interest. Verse, in which he dabbled a bit, has a great charm for him. His great volumes on natural science are not generally known. His most popular works are "The Care and Culture of Men," "Science Sketches," "The Story of the Innumerable Company" and the children's stories, "Knight and Barbara."

THE SOCIAL SECRETARY

AN OFFICER THROUGH WHOM MANUFACTURERS AND MERCHANTS RESTORE PERSONAL TOUCH WITH THEIR EMPLOYEES—HOW THE EXPERIMENT HAS WORKED IN SOME DEPARTMENT STORES

BY

MAUD NATHAN

PRESIDENT OF THE CONSUMERS' LEAGUE OF THE CITY OF NEW YORK

THE old-fashioned method of doling out alms to the poor and unfortunate is giving way to the newer method of studying the causes of poverty and the conditions surrounding the poor, with a view of better understanding the proper remedies to apply in each individual case. Business men realize that it is better to create conditions which make for the abolition of poverty, than to foster conditions which necessarily bring it, and then to alleviate a little of the consequent suffering. Instead of giving away large sums of money for beneficent purposes,—money made from the profits of their business, some of our merchants prefer to divide profits more liberally with the employees who help to build up their business.

In olden days, manufacturers and merchants were more in touch with their working people; factories and stores had not developed into the mammoth business enterprises which they are at present. The head of the firm controlling a huge department store cannot be on friendly terms with his hundreds of employees; he is too busy to take a paternal interest in them. Their private griefs and troubles are a sealed book to him, their physical and moral condition in a great measure unknown. The far-seeing, progressive employer is beginning to find a satisfactory solution of the problem by engaging a social secretary to look after his employees for him. Thus there can be restored something of the old-time personal touch.

The position of social secretary is a responsible one and is an agreeable one for women of broad sympathies who desire to uplift their fellow-women. There are as yet but eight or ten such secretaries employed in factories and stores, although more than a hundred firms are reported to have accepted recommendations made by them. The idea grew out of suggestions made by the League for Social Service. A Boston firm was the first to take advantage of the valuable hint, and a firm in Providence quickly followed the example.

These social secretaries have succeeded in bringing about many improvements which have added to the health and comfort of working girls, with the result of securing better service for the employers. The results achieved serve as an example of enlightened business enterprise.

The social secretaries first became acquainted with their charges, and endeavored to win their confidence. This is not difficult if they have the right qualities. There were many bits of injustice to set right. Some girls had been annoyed or worried by the overbearing or brutal conduct of a rude floorwalker or inspector. The girls had endured this in silence, perhaps from fear of being dismissed if they made complaints, or from a feeling of sensitiveness. Some preferred to suffer annoyance rather than to be the means of bringing about censure or dismissal of their fellow-employees.

One social secretary whom I know began her work by looking after the health of the saleswomen. She studied hygiene and the principles of sanitation. She was thus able to teach the girls how to keep their bodies and their homes pure and wholesome. She was their constant adviser, warning them against imprudence. Among her first tasks was to see that they were provided with a comfortable retiring room, where, in the event of a headache, or sudden faintness, they could recline on a couch for a short time, and after the rest return to their work refreshed. In this retiring room a medicine chest was placed containing useful and harmless drugs and

bandages and the like. She insisted upon proper protection from draughts, cold vestibules and damp basement floors; and she saw that seats were provided and that floorwalkers or overseers permitted the girls to use them.

It was owing to the suggestion of another social secretary that a gymnasium was fitted up in one store, where girls who lived at a distance and rode to and from their work obtained needful exercise. This social secretary succeeded in obtaining a free hospital bed for those employees who might need it. Many girls who would have objected to going to a hospital under ordinary circumstances were willing to do so owing to the secretary's promise to visit them regularly and see that they were well looked after. The same social secretary succeeded in securing the services of three physicians to watch over the health of the working girls. They were paid out of the fines which went into the benefit fund.

To some social secretaries has been entrusted the disposition of the moneys in the benefit fund, their duty being to see that it was distributed wisely. They have felt it their duty to keep in touch with Working Girls' Vacation Societies, so that those girls who had no place to go for a summer's outing could secure accommodations. They advised those who needed mountain air to apply to the Vacation Houses situated in the mountains, and they have endeavored to send those who thrive better in sea air to houses located at some seashore resort. For the girls who have weak lungs or incipient tuberculosis, they have applied for their admission to sanatoria especially provided by philanthropic people.

One of the duties of the social secretaries has been to supervise the lunch room, to see that the food provided is nutritious and of good quality. Many merchants provide for their employees food at cost, and during the holiday season they pay the expense themselves. One New York merchant said some time ago that he gave up providing suppers during the holiday season because the girls would insist upon eating a large quantity of pickles and pastry, and got indigestion, instead of eating food that was good for them. If he had employed a social secretary, she would have countermanded the pickles and pies, and would have provided instead wholesome soups, meats, vegetables or cereals. One social secretary has inaugurated the custom of having malted milk in the lunch room to be had at any time during the day, at two cents a glass, and many girls have found it very sustaining.

Another duty of these new officials has been to supervise the mental food of their charges as well. Upon them devolves the selecting of magazines to place on the table in the rest room, for the girls to look over during the noon hour. By suggesting a good novel or lending a strong essay or a biography of some beautiful character, they claim that they have in some instances elevated the reading tastes of the girls. One firm has established a free library for its employees, and the social secretary has the responsibility of selecting all the books.

Two successful social secretaries have formed girls' clubs among the saleswomen in two department stores, and the girls have become so interested in their clubs, that they meet regularly on one evening a week to study some author's work under the guidance of their leaders. They assemble on other evenings for athletic games, or for classes in stenography, dressmaking and the like. Joining a club gives the girls an opportunity to foster a friendly feeling as well as to uplift themselves, and the club's entertainment is apt to be of a higher grade than the amusements to be had in the vicinity of their homes.

Another good phase of the work is the opportunity it has provided for social secretaries to instil into the minds of their charges ideas of good taste in dress. The saleswoman should always dress plainly and neatly, and have dark, well-fitting clothes. It has been the task of the secretaries to point out that frills, fripperies, mussy chiffons, loud colors, soiled laces, feathers and imitation jewelry are in poor taste. The temptations of salesgirls are many; they see fashionably dressed, elaborately dressed women buying extravagant accessories and they sometimes long to own some of the dainty trimmings, baubles or gewgaws they handle. The social secretaries have taught the girls to spend their money only for things of intrinsic value; and, to encourage them to be provident, they have even opened a penny provident bank to enable them to save their pennies.

Unfortunately the salesgirl is often exposed to the temptation of giving up her exhaustive struggle and toil, hardship and suffering, for a

life that appears to be a life of ease. Underpaid, overworked girls must constantly resist the temptation to accept the wages of sin. Merchants and manufacturers who offer girls less than living wages are responsible for much of the vice that exists in our cities. The social secretaries have endeavored to interest the girls in their work; they have endeavored to teach them good business methods, so that eventually they may appreciate that labor is ennobling when it is pursued with high motives. They have taught them to realize that there is something more in doing a day's work than merely earning their living from it.

The testimony of the firms who have tried the experiment of employing social secretaries is that a better standard of health exists among their employees, that fewer days are lost on account of illness, and that a greater interest is taken in their work. They believe that this good feeling promotes general efficiency. They find, too, that their trade increases because of the interest the shopping public takes in the movement. The thoughtful members of a community are naturally glad to patronize merchants who are endeavoring to better the conditions for their employees. Increased patronage is the best method that can be adopted to show approval and encouragement. If the shoppers do not support the merchants who conduct their business according to the highest principles, then they are really helping to lower the standard of competition to the level of the more unscrupulous and avaricious merchants.

So, after all, the whole matter rests with us in the end—us, the public, each and every one of us; for we can in a measure control what is done for our service, and in our name.

DOES INDUSTRIALISM KILL LITERATURE?

A COMPARISON OF PERIODS OF INDUSTRIAL ACTIVITY WITH PERIODS OF LITERARY FRUITFULNESS — THEIR COINCIDENCE

BY

DR. C. ALPHONSO SMITH

NO one needs to be told that the age in which we live is preëminently an industrial age. We read it in countless newspapers; we hear it in the whirr of machinery; we see it in our material prosperity and we feel it in a certain practical way of looking at things and a certain business-like way of doing things, both of which are characteristically American. "Keep to your own side of the water," say the old monarchies, "and we will keep to ours." And the young republic replies by purchasing a steamship line and by threatening to make the carrying trade of the world dependent upon American fuel oil.

But many excellent persons, chiefly from the ranks of literature, see in our industrial progress a menace to our literary life. They believe that as industrialism advances literature must decline.

This view implies a radical misconception. Industrialism is not materialism, nor is it utilitarianism. These are theories of life, while industrialism is a means of living. The peril of possible degeneration into either of these is more than counterbalanced by the immediate and permanent benefits that industrialism confers. Industrialism brings a sense of popular independence and solidarity. It means development of natural resources; it means emancipation from temporal needs; it means happy homes and diffused contentment; it means wealth, and wealth means more free schools, as well as longer terms and more efficient service in our needy sections.

The idea that we must de-industrialize a nation before the muse of literature will alight is a perversion both of the facts of history and of the meaning of industrialism.

But the conception of literature in the alleged antithesis between it and industrialism is no less perverted. The guardians of literature would not only materialize industrialism —they would unduly etherealize literature. They would devitalize it. But the literature that is too finicky and anæmic to live in an industrial age does not merit to live in any age. "The purpose of literature," says Morley, "is to bring sunshine into our hearts and to drive moonshine out of our heads."

It cannot be too strongly emphasized that literature is the expression of life, and that the more full, free, rich, varied, and abundant life is, the more full, free, rich, varied, and abundant will the literature be. The Elizabethan dramatists did not create the vital energy of their time. They reflected it. They interpreted it. They were not the fountains; they were the reservoirs. New opportunities, new discoveries, new occupations had opened new vistas and literary greatness went hand in hand with material prosperity. There was a twin renaissance, as there was in Athens under Pericles, in Rome under Augustus, and in Florence under the Medici. With the satisfaction of "existence wants" there came the appeal of "culture wants," and this appeal was answered by national expression through literature and the arts.

It is, therefore, in their joint relation to human need that literature and industrialism find their reconciliation. Antagonism can exist only when literature loses its grip on life or when industrialism degenerates into mammonism.

The first industrial revolution came in the reign of Elizabeth (1558-1603). All through the Middle Ages the little country of Flanders, just across the Channel from England, had been the manufactory of Europe. England did not manufacture her own wool; she sent it to Flanders, to be received back in fine textile goods. But in the reign of Queen Elizabeth Flemish refugees came to England, taught the English peasantry their industrial arts, and, for the first time, England ceased to be dependent on Flanders and became herself a wool-manufacturing country.

The manufacturing population spread all over the country. Even North England, which had lagged far behind South England, now showed signs of renewed industrial activity. Of course it was all domestic manufacture; it was handiwork. But England increased rapidly in all that constitutes material prosperity.

The keels of Raleigh, Drake, Frobisher, and Hawkins vexed all seas and brought treasures from all shores. Sir Thomas Gresham founded the first Royal Exchange. England felt the thrill of a new industrial life and the thrill of a rounded nationalism born of industrial freedom. I have often thought that when Shakespeare spoke of "This precious stone set in the silver sea, this blessed plot, this earth, this realm, this England" there passed before his eye not only a vision of armed and warlike England but a vision of happy English homes filled with the peace and contentment that spring from self-supporting toil.

Elizabeth's reign, the glory of English letters, was, then, peculiarly an industrial epoch. In 1775, James Watt began the manufacture of steam engines, and thus inaugurated the second industrial era. The change from the domestic system of industrialism to the modern method of production by machinery was sudden and violent. Before 1800 all the great inventions of Watt, Arkwright, Boulton, and Hargreaves had been completed, and the modern factory system had begun. "England increased her wealth tenfold and gained a hundred years' start in front of the nations of Europe." In fifteen years (1788–1803) the cotton trade trebled itself.

Of course, vigorous protests were made against this spirit of rampant industrialism. Thomas De Quincey, then only fifteen, complained in 1800 that he could not stir out of doors without being "nosed by a factory, a cotton bag, a cotton dealer, or something else allied to that detestable commerce." The Jeremiahs and Cassandras believed that everything was going wrong.

Yet literature was witnessing a renaissance second only to "the spacious times of great Elizabeth." So far from being materialized literature passed into its romantic period, its liberal era. This was the age of Keats, Shelley, Byron, Scott, Coleridge, Wordsworth, Burns, and Burke. In love of nature, in devotion to democratic ideals, in variety of range, and intensity of feeling, this period takes precedence of Elizabeth's reign. It was of this age that Wordsworth said:

> "Bliss was it in that dawn to be alive,
> But to be young was very heaven."

Where then is the antagonism between literature and industrialism?

There has been but one other great industrial era marked by wide-reaching discovery and fruitful invention. It falls between 1830 and 1850. Those two decades shaped the Victorian era.

In those years railroads began to intersect the land, telegraph lines were first stretched, and the ocean was crossed for the first time by steam-propelled vessels. The products of manufacture could now be sent with dispatch to the most distant quarters. Nations came closer together. The two hemispheres became and have continued one vast arena of industrial interchange.

The writers who have dominated the literary life of the Victorian era, and who bid fair to dominate many decades of the present century, are Tennyson, Browning, and Mrs. Browning in poetry; Dickens, Thackeray, and George Eliot in fiction; Ruskin and Carlyle in miscellaneous literature. Each of these rose to prominence between 1830 and 1850.

The second industrial era could, of course, make little headway in America. What population we had was struggling for its very existence as an independent people; but the third industrial era, that from 1830 to 1850, found conditions ripe for assimilation in the New England States. These States were especially fitted by their institutions, by their situation, and by their town and city population to prove hospitable to the new influences and thus to assume the industrial leadership. This they promptly did.

"The American people," says Mr. Mabie, "have not yet come to full national self-consciousness. They have come to sectional self-consciousness; and, in New England, for example, that clear realization of ideals and formative tendencies found expression in a literature the beauty and the limitations of which are significant of New England character." But this literary self-consciousness was not attained until New England had felt the thrill of a vigorous industrialism. Until 1830 New England had no vital literature. But between 1830 and 1850 it was represented by Longfellow, Lowell, Whittier, Hawthorne, Emerson, and Holmes,—the six men who have given the New England States their supremacy in American literature.

The West and South had to wait for their industrial awakening until 1870. The West in 1830 was either unexplored or unexploited. Neither Chicago nor San Francisco had been incorporated, and Cincinnati had worn city clothes but sixteen years. But in 1870 the Union Pacific Railroad, which opened the West to commerce with Asia on one side and with the Eastern States and Europe on the other, had just been completed; and Bret Harte had just written the first chapter of Western literature in his "Luck of Roaring Camp."

There had been tentative beginnings in the Ohio Valley a few years before, but the literary relay race did not fairly begin until 1870. Since then the West, and especially the Middle West, though inadequately represented in the so-called handbooks of American literature, has not lacked for writers to portray its life with force and fidelity.

For the South, the year 1830 witnessed the memorable debate between Robert Y. Hayne of South Carolina and Daniel Webster—the most significant contest that the Senate of the United States has ever seen. Sectional lines began to be drawn closer and closer. The South was shut in more and more from outside influences. Her industrial system, based on slave labor, stood as a barrier to the new industrial movement; and the enforced defense of this system, together with the political problems and prejudices that it engendered, threw literature into the background and brought oratory to the front.

But the events of 1861–1865 changed all that; and today the South is thankful that slavery is no more. By 1870 the Southern States had begun to adjust themselves to the changed conditions. Since then so swift has been their industrial advancement that statistics become obsolete before they can be tabulated. And with it all has come a literary inspiration impossible before.

Literature and industrialism, viewed as collective movements, are but different phases of a nation's activity. While each remains true to its goal there can be no antagonism; there can be only the frankest concord and the heartiest coöperation. Each is necessary to the healthiest development of the other. Industrialism is the body, literature the spirit.

"Nor soul helps flesh more, now, than flesh helps soul."

THE UNRELIEVED BARRENNESS OF THE MARSH
Showing the Indians loading the salt on the encrusted flat car

A DRY SALT SEA IN THE DESERT

A VAST EXPANSE IN THE COLORADO DESERT COVERED WITH CRYSTAL CONES OVER WHICH THE MIRAGE SHOWS FLOWERING FIELDS AND CITIES

BY

ARTHUR INKERSLEY

THE field of crystallized salt at Salton, California, in the middle of the Colorado Desert, a little to the north of the Mexican border line, is 264 feet below the level of the sea, and is more than a thousand acres in extent. Its surface is as white as snow, and, when the sun is shining, its brilliance is too dazzling for the eye. The field is constantly supplied by the many salt springs in the adjacent foot-hills, the waters from which drain into the basin, and, rapidly evaporating, leave deposits of almost pure salt. The deposits, varying in thickness from ten to twenty inches, form a solid crust over the marsh.

To secure the harvest the salt field is ploughed with a salt-plough—a massive four-wheeled inplement driven by steam and managed by two men. The heavy steel share makes a broad but shallow furrow, throwing up the crust in parallel ridges on either side, and bringing to view a seepage from the salt springs that underlie it. About seven hundred tons are ploughed up in a day. Laborers then work the salt with hoes to and fro in the water to remove the earthy particles, and, when this is done, they stack up the washed salt in conical mounds to be taken later to the mill. The water in which the crystals are washed is already so saturated with salt that the crystals suffer scarcely any loss by the cleansing process, which is a necessary preliminary to refining. To furnish additional water for washing the salt, an artesian well has been sunk which, though it is 900 feet deep, is still strongly alkaline. At present only about ten acres of the great field are worked, as a new crust forms

SALT CONES READY FOR THE MILL

The Indian laborers have washed the salt and stacked it

almost immediately after the plough has passed on.

To the north of the salt field is a little settlement named Salton, where the drying and milling works are. After the salt has been stacked in the field to drain, it is loaded on flat trucks and taken to the works, hoisted to the top and thrown into a breaker. After being reduced to particles of uniform size, it is passed through a mill and ground to powder. Then it is sifted and packed into sacks for the market. The salt prepared in this manner is of the best quality, but much is sold for commercial purposes in its unrefined condition, under the name of "hide salt."

The laborers employed in the Salton district are Indians or Japanese, because no white man could work long in the extreme heat. For several weeks together the thermometer averages 140 degrees, and the sun reflected from the dazzling white salt fields produces a glare like that of an electrical furnace. Even the hardy little Japanese laborers perform only one task—the sewing of the sacks in which the salt is packed; the ploughing and milling are done wholly by Coahuila Indians. The atmosphere, laden with particles of salt, causes a painful thirst, which they vainly try to assuage with the brackish and warm waters of the only well in the place.

Under certain atmospheric conditions appear above the salt field mirages of broad flowering fields and towering cities. Moonlight, too, often produces weird and singularly beautiful effects on the great white field of gleaming salt.

The most peculiar experience this basin has had occurred in 1891 when a flood from the Colorado River turned the salt plain into a lake. But the rapid evaporation of the region soon brought the country back to its normal condition.

THE STEAM SALT PLOUGH
Furrowing the constantly re-forming salt crust

WILLIAM C. WHITNEY

BY

W. J. K. KENNY

TO attract favorable attention in youth at the New York bar; to become the manager of an important political faction in early manhood, and one of the leaders of a great party; to take up the affairs of the Navy Department and give them definite direction; to link a series of disjointed street railways into a complete system in a great city whose transit facilities had been notably poor,—to do any one of these things would be an achievement. To do them all proves a strong man. And that is what Mr. William C. Whitney is.

Were you to meet him in ordinary life you might think him a clean-cut, clear-minded, good-humored person—and only that—unless you happened to note that once in a while his glasses were not covering his eyes and that, lowering his head for an instant, he took a sharp penetrating glance at you. He was considering whether you were the man for his purpose.

Mr. Whitney came to New York City from his native State of Massachusetts with superb health, a university education, a supply of industry, a power to direct others, and soon made himself known at the bar. Then he entered local politics, at that time complicated by corrupt Democratic and Republican legislators, Young Democrats, Apollo Hall Democrats, Tammany Hall Democrats and Reformers. He joined the Apollo Hall workers. His ease, his power of suggestion and direction, soon controlled. He became a leader, and in 1872, when thirty-one years old, he was the Apollo Hall candidate for District Attorney. He had no chance of election, but he got recognition. It became known that Whitney was to be reckoned with. When a new upheaval came about, he appeared at the front of the Irving Hall faction; and he was at their front when seceders from Irving Hall established the County Democracy, of which he conceived the final plan. The details were worked out by Hans S. Beattie, who had been his private secretary. Through Mr. Whitney, and as a result of this work, Mr. Beattie became successively a county officer, Surveyor of the Port under Cleveland, Street Cleaning Commissioner of New York, and Treasurer of the Metropolitan Street Railway Company.

Meantime Mr. Whitney had become the Corporation Counsel, the head of New York City's Law Department—his first public office. The law department had been a hive of drones; he used some of the good material he found in it and got rid of the other. Then he sought new tools, and found them, as usual. With such men to help him as George P. Andrews, now a Justice of the Supreme Court, Francis Lynde Stetson, counsel for several of the greatest railway and financial corporations; David J. Dean, an authority on municipal law; E. H. Lacombe, now on the bench of the United States Circuit Court; Andrew T. Campbell, who became Chief Clerk and has been in the Law Department for more than forty years, and others who have since become successful practitioners, Mr. Whitney made the Law Department a place of successful industry.

While watching over the business of his office, Mr. Whitney found time to act with Peter B. Olney and the late George Bliss, first in the revision of the local and special laws affecting the City of New York, and next in preparing the Consolidation Act, which many lawyers consider the best instrument of its kind ever framed in this country. It was weakened by the action of successive Legislatures, but the present New York Charter was founded on and inspired by it.

Mr. Whitney meanwhile kept his eye on Tammany Hall. He sought to control it, as all New York Democrats do, however much they may condemn it when outside. He wanted Democratic unity always, but preferred a tiger of his own adoption and training. The County Democracy accordingly made a strenuous effort to get control of the Tammany Society. The details of the plan were left to Hubert O. Thompson, the nominal director of the County Democracy.

They did not work out successfully, and matters went on as before. Sometimes Tammany and the outsiders fought one another; sometimes they called a truce, and together fought a common opponent. William C. Whitney was always active in the field; he had left the office of Corporation Counsel, and was seeking a franchise for a railway on Broadway. Since then he has not taken an open part in local politics further than to show interest in it when it bore upon national politics. When his interest waned, the County Democracy weakened and soon left the field to Tammany Hall.

With Grover Cleveland's entrance into the Presidency in 1884, Mr. Whitney, who had been his warm advocate, became Secretary of the Navy. He knew little about warships, but he did know that it was the function of his department to provide the country with a navy; and he undertook to provide it. He consulted the men who had been trained to know about warships, and he had bitter controversies respecting the merits of some vessels which had been contracted for before his appearance in office; the heat of these disputes has not died out yet. He maintained his stand. He learned about warships, and it was due to the activity induced by him that our navy was in the good condition it showed during the Spanish War.

His term of office ended, Mr. Whitney returned to New York City to carry out his scheme to unite and systematize the operation of its railways. The cars were wretched affairs, and all were drawn by horses. Mr. Whitney took with him to New York Colonel Daniel S. Lamont, Cleveland's private secretary, out of politics to learn railroading, and made him president of the Avenue C Company. Later, Mr. Whitney became Lamont's earnest advocate when President Cleveland sought a New York man for his Cabinet, and Lamont became Secretary of War.

There seem to have been two reasons why Mr. Whitney would not go back into President Cleveland's Cabinet. One of them grew out of politics. When the Democratic National Convention met in Chicago in 1892, the delegates from New York arrived there with a document containing a declaration, signed by every delegate and by every member of the Democratic State Committee of New York, that the sentiment of that State was adverse to Mr. Cleveland, and that it would be unwise to nominate him as, being unable to carry his own State, he must be defeated in the nation. Mr. Whitney and other New York Democrats did not agree with this. Directed by him they labored with the delegates from the other States, asking them to consider the sentiment of their own States and, if they determined it to be favorable to Mr. Cleveland, to vote for him without regard to New York. And so, despite oratory from Cockran, Fellows and DeWitt of New York, Cleveland was nominated.

"As to whose brain had organized this defeat," said the *Brooklyn Eagle*, one of the most earnest advocates of Mr. Cleveland, "and whose diplomacy had accomplished this humiliation (of the New York delegation) men in Chicago had no doubt. Mr. Whitney was credited everywhere with the defeat—and justly." "This element (the New York Democrats who sought Mr. Cleveland's nomination), organized, dominated and directed by Mr. Whitney, having in its ranks men of the first ability, speaking in the national convention, if it spoke at all, through the voice of another State, carried out its purpose."

Some of Mr. Cleveland's too ardent partisans were bitter in their assaults upon the men who had told the convention that he could not carry New York. Mr. Whitney was not. He saw clearly that, as Mr. Cleveland carried the State by about only 1,000 in 1884, when Mugwumpery was rife, and lost it by about 15,000 in 1888, men who did not like him personally might easily and honestly persuade themselves that he could not carry it at all in 1892. He again exerted his diplomacy. He helped the Democratic "machine" take 30,000 votes from Harrison and give them to Cleveland. The people wanted Cleveland more than in 1884, when they gave him a popular plurality of 23,000, or in 1888, when his plurality was 95,000. In 1892 the plurality was about 380,000. William C. Whitney had the astuteness to discover how the popular mind was working. And one reason why he would not go into Mr. Cleveland's Cabinet in 1893 was that he wanted to show that he had worked for Mr. Cleveland's nomination not with the hope of getting a high office, but because he had thought that Mr. Cleveland was the only man his party could elect.

He turned again to railroading. He had begun in 1884 by acquiring a railway line five miles long on Broadway, and he went on buying or leasing until he produced the present Metropolitan Railway system, which embraces all the surface lines on the island of Manhattan and in the borough of the Bronx as far north as a mark drawn east and west from Tarrytown-on-the-Hudson to Mamaroneck on Long Island Sound. Then he declared that horse-cars were out of place in New York. Mayor Grant was carrying on a crusade against telegraph and telephone poles and wires in the streets, and the people generally objected to trolley poles and wires. Mr. Whitney installed a cable system on Broadway at a cost and in the face of engineering difficulties until then thought prohibitive. It worked successfully, but its cost was too great to permit its extension.

The thing to do, then, was to find a traction method cheaper than the cable and not objectionable like the trolley. The underground electrical system had been in use to a certain extent in Buda-Pesth, Hungary, and in Washington, D. C., but observation had shown that unless almost radical changes were made it could not be used in New York City, where induction was likely to result from rain or snow choking the conduits. Two years of experiment indicated the changes to be made, and then the underground system was applied to several railroads that had been operated with horses. It was successful and was extended until, finally, it was installed on Broadway and Columbus Avenue, where it superseded the cable at the height of the cable's efficiency. There are still 153 miles of horse-car track—or more than are operated in the rest of the United States—in the Metropolitan Street Railway system, but it is practically unified and all parts of the city are in communication by means of it.

Great as has been his railroad work, it has not taken all Mr. Whitney's energy. He is a director in the New York Life Insurance Company, in the Mutual Life Insurance Company, in the Morton Trust Company, the Consolidated Gas Company and in numerous steam railroad and industrial corporations. He has found time to patronize the arts and sciences, for he is a director of the Metropolitan Opera House, the Metropolitan Museum of Natural History, the Zoological Society and the Botanical Society; and he is governor in a dozen clubs. With the manifold duties these various offices impose upon him, he has formed one of the greatest racing stables ever known in America, and has bred, trained and raced a score of horses whose performances have won glory for his colors on the turf. He won the Brooklyn Futurity with Bally-hoo-Bey in 1900; the 1901 Derby with Volodyovski and other English classical stakes with American-bred colts and fillies.

The apparent ease with which he accomplishes results is remarkable. No one ever saw Mr. Whitney in a hurry or knew him to give evidence of pressure or excitement even in the heat of political strife. His serenity and composure seem beyond the influence of events. The princely character of his hospitality, the number and extent of his places of residence, are part of the gossip chronicles of the day. Mr. Whitney has on Fifth Avenue, New York City, a house only opened once when a ball was given, which is said to have the most artistic interior in America. Another house, among the most important on Long Island, is surrounded by about one thousand acres in what are known as the Wheatley Hills at Westbury. On this estate is one of Mr. Whitney's training stables. At Gravesend, near the Coney Island Jockey Club, he owns the old Garrison place, and there keeps his racing stable during the meetings of the Brooklyn and Coney Island Jockey Clubs in the spring and fall. These, however, fade into insignificance before the records of the Land Office at Albany, which say that Mr. Whitney is the largest individual landowner in the State.

On the first of February, seven months after his sixtieth birthday, Mr. Whitney retired. Politics, he said, would engage him no more, and the business of the score of corporations he directed would no longer take his attention. "I have worked hard for a good many years," he remarked, "and am going to take the rest that I have earned." Still in most ways a young man, Mr. Whitney is content with what he has, and measurably content, perhaps, with what he has done. He takes with him to retirement the distinction of eminent citizenship.

OUR FUTURE RELATIONS WITH GERMANY

THE EFFECT OF THE AMERICAN INVASION ON GERMAN INDUSTRY—THE PENDING TARIFF BILL AND THE AGRARIAN PARTY — GERMANY WOULD SUFFER BY A TARIFF WAR WITH US—AN EXPLANATION OF THE WHOLE INTERESTING SITUATION

BY

WOLF VON SCHIERBRAND

FOR MANY YEARS CHIEF CORRESPONDENT OF THE ASSOCIATED PRESS IN BERLIN

THE Germany of today is a workshop for many nations. The express from Cologne to Berlin shoots for hours through swarming towns, which are almost as well lighted at night as by day, with tall chimneys belching flame, where thousands of skilled mechanics, miners, and artificers turn out the finished product of shuttle and anvil. This busy district is the creation of the last two decades. Nature has provided coal and iron ore, in enormous layers and veins, but most of it so deep down that the cost of mining is considerably higher, despite lower wages, than in either Pennsylvania or England Yet such flourishing industrial centres as Essen, Bielefeld, Bochum, Muenster, Minden, Dortmund, Elberfeld, Barmen, Krefeld, Aix-la-Chapelle and Siegen, have for years successfully competed with the world. The backbone of Germany as an exporting centre is in this district, and there the great German captains of industry have built up their immense plants and their gigantic fortunes. But in transportation facilities, and especially in railroad freights, they are again worse off than their two chief rivals, and the mines, too, for the most part are not convenient to the harbors by the North Sea and Baltic, or to the people of the eastern provinces. The canal system which the Kaiser planned years ago, to give the industrial output of the west cheap transportation to the eastern agricultural provinces, and the latter's foodstuffs an easy transit to the west, is still, since the Agrarian party in the Prussian Diet twice killed the bill, unrealized. The harbor at the mouth of the Ems River, Emden, will be turned into an important shipping point, it is true, with four or five times its present capacity for handling merchandise. But the Prussian Government's plans will require at least ten years for execution. Then Emden will become another Hamburg or Bremen, and German manufactures from the Westphalian lowlands can be cheaply shipped But the present drawbacks for the German manufacturer in those regions are serious.

Yet, aside from the financial depression in Germany, the effects of which bid fair to last several years longer, German industry today is somewhat demoralized. The fear of American competition has wrought its spell there as well as in England. The phrase "American invasion," has taken thorough hold of the German imagination. Nor is this to be wondered at. Such a veering around of trade conditions as has taken place between the United States and Germany is enough to strike terror even to unimpressionable Germans, and the enemies of the United States there have naturally made the most of it. In 1880, the total imports of Germany were 2,844 million marks, of which less than 6 per cent. came from the United States; while Germany in the same year exported out of a total of 2,977 millions to this country more than 6 per cent. In 1890, 9½ per cent. of German imports came from the United States, while she exported 12 per cent. to this country. In 1900, out of a total import of 6,043 millions the United States furnished 17 per cent. of the whole, and out of 4,752 millions' worth of exports but 9 per cent. went to this country. The change is astounding. Of course, much of this rise of American imports into Germany

was due to German prosperity, since the large bulk of goods consisted of rawstuffs which were subsequently finished, and either re-exported or consumed. But a steadily growing proportion were finished products, a rising percentage of them successfully competing on German soil with German products. It is this development of the last five years which inspires in the German manufacturer and merchant a fear of the overpowering strength of American competition. It has become plain to him that a country which twenty years ago exported forty million dollars' worth of goods, or 5.8 per cent. of the total to Germany, and now sends 250 million dollars' worth, or 17 per cent. of the total, while taking practically no more of German goods than it did ten or fifteen years ago, is a country with which trade relations urgently need adjusting. And that is really at the bottom of the German Government's desire to bring about a commercial treaty.

The trade relations between the United States and Germany have so far been based on the old treaty of 1828 between Prussia and this nation. By this treaty neither Prussia nor the United States could admit other nations to more favorable terms of commerce without admitting at once the other contracting party to the same terms, and this without previous negotiations. This at least has been the German interpretation of the treaty, which, after the foundation of, first, the North German Confederation in 1866 and, next, of the German Empire in 1871, was extended to the other parts of Germany as well as Prussia, with the exception of Alsace-Lorraine, at least so far as certain paragraphs go. Now this interpretation, after being practically in force for many years, has been disputed of late on several occasions by the United States, particularly by Secretary Gresham; and the German Government, by the wording of the so-called Saratoga Convention in 1893, gave a *quasi* tacit consent to this later American interpretation. The question became acute several years ago when Germany, under her treaty rights, denied to this Government the right of concluding separate reciprocal commercial treaties with France or other countries without at once admitting Germany to the same benefits. The questions have never been settled, and the treaty of 1828 is, therefore, still valid, even if its provisions have not at all times been scrupulously adhered to.

Germany, under the chancellorship of Count Caprivi, between 1892-94, concluded special commercial treaties with a number of her more important customers, notably Russia, Austria, Italy, Belgium, Roumania and Switzerland, and with some South American countries. These treaties have benefited Germany's trade. The steadily rising column of her exports and imports proves it. Since 1892 her exports have risen from 3,150 million marks to 4,752 in 1900, and her imports from 4,227 millions to 6,043 millions. Trade with several of the countries has already more than doubled. Yet under the treaties agriculture undoubtedly suffered. This had been expected by the Agrarian party, which opposed the treaties when they were before the Reichstag, and in the autumn of 1894 drove Count Caprivi from office. To what an extent German agriculture really has been injured by the importation of Russian, Roumanian, American, Argentine, Austrian and Italian agricultural products it is impossible to tell, since no official figures have ever appeared and since the Agrarian party and its press magnify these injuries as their opponents belittle them. There is no doubt, however, that the damage done fell unequally. It was least noticeable in the industrial West, where, indeed, the small farmers and peasants, who form the bulk of the agricultural population, were actually benefited; it was not severe in the southern and central portions (except in certain districts of Bavaria); but it hit hard some of the eastern provinces of Prussia, where there are thousands of large entailed estates, whose owners could not adjust themselves to the new conditions, and, unable to compete with the cheaper grain, cattle, etc., of the treaty States, lost much money or, in some cases, saw their mortgages foreclosed and themselves beggared.

Those who came to grief belonged, in other words, almost to a man to the landed aristocracy of Prussia's eastern (and in every way most backward) provinces. This class of the population is numerically quite insignificant, a few thousands or so, but by reason of their ancient privileges, their enormous influence in the rural districts and their affiliations at every court, in the army and in every branch of the vast and far-reaching

governmental hierarchy, and also because they control more than half the seats in both houses of the Prussian Diet through the antiquated election law, they nevertheless know how to make their will respected. Their money in large part maintains the so-called Agrarian press, and their brain power wages in this press a fierce and never-ceasing war against all non-Agrarians—the commercial classes and the liberal factions in Diet and Reichstag; all the public men or officials who are not on their side; the Kaiser even, if he seems to show too much favor to their adversaries. Their influence is perhaps even stronger in court circles and in the social life of the upper strata. Of course, the Agrarian party and their press regard the United States with special disfavor, as it is American competition which they most keenly feel, and everything about American institutions and customs is contrary to their deep-rooted prejudices and convictions. These unprogressive manorial lords are popularly known as "the Younkers," and are half-forgotten relics of mediævalism.

Now, the commercial treaties will expire by the end of next year, and the whole Agrarian party are doing their utmost to render renewal impossible. The tariff bill now pending in the Reichstag, the Government claims, is intended as a forerunner to renewal. It is a mooted question whether Count Buelow is sincere in this claim. He has publicly declared that he is an Agrarian himself, and family traditions and personal relations and interests point in the same direction. But whether he is sincere or not, this bill, though it goes very far in meeting the wishes of the Agrarian party, does not go far enough, and they mean to tack on a number of amendments which would render the chances of any subsequent commercial treaties quite illusory —which is precisely what they want. Such a bill, however, would fail of approval by the Bundesrath (or Federal Council), and would thus entirely miscarry. It would then be necessary for the Imperial Government to prepare another bill, which would have to go before a new Reichstag, after a dissolution of the present one with its Agrarian majority. It is, therefore, a matter of conjecture what will become of the tariff bill as a whole. The Government had framed it to hit with particular force the products of the United States, both agricultural and industrial. If it were to be finally passed substantially in its original shape, it might either lead to retaliatory measures by the American Government, or to a mutually satisfactory commercial treaty.

The still-existing German tariff is frankly protectionist, and is, with some subsequent alterations, the one framed under Bismarck when that statesman became converted from his free-trade views. It is, however, when compared with the Dingley tariff, very moderate, viz., showing an average of thirteen per cent., as against the Dingley tariff's fifty-four per cent. The bill would raise that percentage to about seventeen or eighteen per cent., but many items on it, and particularly some touching American goods, show a much higher percentage—up to fifty and sixty. It is a measure largely framed for the express purpose of either forcing the United States into a special commercial treaty, or else to diminish American imports into Germany, for not only are heavier duties laid on such leading articles of American export as cereals, copper, petroleum, meats and nearly all other foodstuffs, but also, and mostly much heavier ones, on such American manufactures as within recent years have begun to compete with German industries, like bicycles, shoes, labor-saving and tool machines, leatherware, furniture, locomotives, stoves, electric appliances, &c.

The German Government is, however, not in as strong a position in this whole matter as would at first appear. The vulnerable points may be summarized thus:

Germany must do her utmost to preserve her markets, for she, like England, must largely export in order to live.

German agriculture does not now produce, and is not likely to produce in the future (even under a new and more favorable system of commercial treaties or tariffs), enough food for the nation.

By enhancing the price of foodstuffs by higher duties, Germany renders competition for her industry yet more difficult, and is liable to precipitate a severe industrial crisis.

A tariff war between the two countries would fall with much more crushing force upon Germany, for the simple reason that while Germany absolutely needs for her industry or for her laboring population the more important items in her list of American imports, the United States would suffer no very

appreciable discomfort if no German imports whatever should reach this country.

In Germany now, according to the latest official census, fifty-seven out of every hundred people are engaged in industrial or commercial pursuits, and only forty-three in agricultural and allied employments. The overwhelming interests are industrial. About one-third of the foodstuffs consumed in Germany today comes from beyond her frontiers.

By far the larger part of the German people are opposed to the pending tariff bill. The whole laboring population condemns it. So do the industrial classes, the merchants, and even a very large portion of the smaller farmers and landholders in the western and central districts of the empire

The Agrarians dwell with special emphasis on the large discrepancy between the amount of imports from and exports to the United States. Yet by analyzing these figures it becomes apparent that Germany as a whole can hardly do without the bulk of the commodities purchased from this country. The American cotton, which forms the largest item in the list, she certainly cannot spare. There is nothing produced elsewhere which, given prices and quality, could take its place. And cotton forms one-fourth of the entire American imports. American petroleum, copper, and meat preserves cannot be spared nor obtained in like quantity and quality from other countries. As to petroleum, the German Government has for years encouraged in every possible way importation of the Russian article, but all to no purpose. The Russian petroleum was found unavailable for most purposes, and the American variety still holds its place. American meat preserves, against which a systematic campaign was also made by the Agrarian press and party, in the course of which much was heard of the grave hygienic dangers from the consumption of "embalmed meat," has also more than held its own. An amusing illustration of this was furnished at the time the German war vessels and troops were fitted out for the suppression of the troubles in China. It fell like a thunderclap in the Agrarian camp when it was learned that the Government had equipped the expedition with American canned goods. The Agrarian press raved, and the Government was formally interpellated about it in the Reichstag. The answer was that there was nothing else so good, that the American goods had given uniform satisfaction in the German navy and army for many years.

The great bulk of American imports then are substantially indispensables. The better paid the German worker is, and the more German industry flourishes, the larger will be the consumption of these American commodities. Other American goods, in a coming tariff war with Germany, it would not be feasible to exclude from the market. They are American cereals, hides and leather, etc., and American manufactured goods, notably those spoken of above, less than one-sixth of the whole. In a tariff war, they would doubtless find their way to German consumers in a round-about way, via Holland, Belgium and England. This is Germany's real position if it ever should come to retaliatory measures between the two nations.

On the other hand, it would be relatively easy, and fraught with no perceptible hardship to the American trader and consumer, to bar out German imports here, as a glance at the list of German goods reaching this country will show. They are, in the order of their importance: beet sugar, textiles, chemicals, chinaware, toys. These five items cover 75 per cent. of the German imports here, and while it is likely that for a short time it would be difficult to replace these goods in quality and price, they could within a few months be purchased of England, Belgium and France. And at any rate neither these nor the rest of the German commodities bought by America are indispensables in the sense in which the chief American ones are that to the German market.

The German Government knows, of course, the weakness of its position if it should ever come to a tariff war, and so does the unprejudiced Liberal press in Germany. Dr. Theodore Barth, a leading German parliamentarian and editor of the Liberal organ, *Die Nation*, has pointed out these facts time and again. His argument and that of the entire Liberal Left in the Reichstag is that the tariff war with this country which the Agrarian party is doing its utmost to bring on, would be suicidal for Germany, and that the pending tariff bill, tending in the same direction, is to be condemned for this and for other potent reasons. The fate of this tariff bill will, therefore, decide the material welfare of the Empire for years to come.

THREE YEARS IN HAWAII

THE DEFINITE RESULTS OF AMERICAN RULE IN THESE TROPICAL ISLANDS —THE NEW HAWAII AND THE OLD

BY

EDWIN MAXEY

WE have official reports covering about three years of the new relations between Hawaii and the United States. The record of what has been done is especially interesting as one result of our experience in political coöperation with inhabitants of the tropics. The success of different nations in directing the activities of tropical peoples has been very varied. The failure of some can be accounted for because they have proceeded upon the hypothesis that the weak should help the strong rather than that the strong should help the weak. While our experience has not been sufficiently extended to demonstrate our aptitude nor to convince all as to our motive, the results are, nevertheless, worthy of study.

Along with an increase in the liberties of the people has come a surer guarantee that these liberties will be respected. Law has become a more substantial thing. A due respect for it and a better understanding of it have developed *pari passu*. While never a lawless, vicious people, the Hawaiians were more or less indifferent to the administration of justice, and what was needed was a clarifying and quickening of the juristic sense. This the new Government has succeeded in securing.

The expenditures for public instruction have been increased by sixty per cent. during the brief period of three years, showing our policy of making the education of the masses one of the essential duties of a Government. Manual training schools are very wisely included in the system of public instruction. A tract of 733 acres of public land has been set aside for a site for a boys' manual training school. It is calculated that in a few years the institution will be self-supporting, for there is enough wet land to raise forage for a small dairy farm, and to furnish the necessary vegetables for consumption. The present location of the boys' school will be utilized for an industrial training school for girls. Evening schools are provided for adults, many of whom are very desirous of learning English and of securing the rudiments of an education. But the advancement in juristic and educational lines is not, at any rate during short periods of time, as easy of proof as the material progress. Tangible evidence of material development is to be found on every hand.

The commerce of the islands has increased 100 per cent. during the brief period of their annexation. It is at present $339 per capita, a figure far above that of any other tropical people. It is interesting to note that ninety per cent. of the trade is with the mainland of the United States; and it is especially interesting to know that only about twenty per cent. of this is carried by foreign vessels. The value of all real and personal property has increased 120 per cent. since the annexation. The value of agricultural products has nearly doubled. Homestead laws very similar to those which have been such a factor in the development of our own country have been enacted for the Islands, and are responsible for some of the development in agriculture. The number of miles of railway in operation has more than trebled since annexation. The Kohala & Hilo Railway alone will lead to an immense improvement in over 160,000 acres of agricultural land.

The new plant of the Honolulu Iron Works has been constructed within the past two years. It covers six and one-half acres of ground; all the buildings are made fireproof; and it is modern in every respect. They are fitted with the most efficient machinery and machine tools. The business of this company has increased rapidly, amounting last

year to $1,500,000. It is now building the first iron steamer ever built in Hawaii. The skilled mechanics employed are nearly all secured from the United States, and the unskilled laborers are almost exclusively native Hawaiians. Repairs for several of our naval vessels have been made at these works. The general prosperity has shown itself in the number and character of new buildings erected. I quote the following from the Governor's report for 1901:—"Building operations have been very active in both Honolulu and Hilo; many pretentious residences have been erected and numerous cottages have been built to accommodate the increasing population. New stores, warehouses, business buildings, and structures for mechanical purposes have kept pace with the growing city." During the past year new buildings have been constructed at a cost of $4,118,122. The Alex. Young building in course of construction will cost $1,000,000. The waterworks of the five leading cities are owned and operated by the public. The receipts from the Honolulu waterworks were, in 1901, very nearly $100,000, while the expenditures for the five cities was $61,000.

There has been no great change in the amount of governmental expenditures, but a very marked change in their character. The appropriation for the support of the royal family which in '98 was $45,300, was, in 1901, but $1,060. The expenditures for the Department of the Interior have more than doubled Those for the Bureau of Public Works have increased more than 125 per cent. The appropriation for the support of the military was, in 1898, $54,434; in 1901 it was nothing. That the effect of these changes in the character of the expenditures would show itself in economic development is too evident to require proof.

It would be a mistake to suppose that our liberal and salutary policy has been, is, or will be, without opposition. The party of opposition is indigenous to every soil. In Hawaii, this party, which goes by the name of Home Rule Party, or the party of "Hawaii for Hawaiians," is led by a German and an Irishman. But the more intelligent part of the community, those having the deepest and most substantial interest in its welfare, favor the present relations to the United States. Certainly American control has, as yet, resulted in no considerable hardships to either Hawaii or the United States, but rather in substantial benefit to both. And in so far as it is possible to generalize, we may conclude that we are not unfitted either by national purposes or by political adaptability to assist tropical peoples in their social, political and economic development.

THE NOVEL WITH A "PURPOSE"

BY

FRANK NORRIS

AFTER years of indoctrination and expostulation on the part of the artists, the people who read appear at last to have grasped this one precept—"the novel must not preach," but "the purpose of the story must be subordinate to the story itself." It took a very long time for them to understand this, but once it became apparent they fastened upon it with a tenacity comparable only to the tenacity of the American schoolboy to the date "1492." "The novel must not preach," you hear them say.

As though it were possible to write a novel without a purpose, even if it is only the purpose to amuse. One is willing to admit that this savors a little of quibbling, for "purpose" and purpose to amuse are two different purposes. But every novel, even the most frivolous, must have some reason for the writing of it, and in that sense must have a "purpose."

Every novel must do one of three things—it must (1) tell something, (2) show something or (3) prove something. Some novels do all three of these; some do only two; all must do at least one.

The ordinary novel merely tells something, elaborates a complication, devotes itself primarily to *things*. In this class comes the novel of adventure, such as "The Three Musketeers."

The second and better class of novel shows something, exposes the workings of a temperament, devotes itself primarily to the minds of human beings. In this class falls the novel of character, such as "Romola."

The third, and what we hold to be the best class, proves something, draws conclusions from a whole congeries of forces, social tendencies, race impulses, devotes itself not to a study of men but of man. In this class falls the novel with the purpose, such as "Les Miserables."

And the reason we decide upon this last as the highest form of the novel is because that, though setting a great purpose before it as its task, it nevertheless includes, and is forced to include, both the other classes. It must tell something, must narrate vigorous incidents and must show something, must penetrate deep into the motives and character of type-men, men who are composite pictures of a multitude of men. It must do this because of the nature of its subject, for it deals with elemental forces, motives that stir whole nations. These cannot be handled as abstractions in fiction. Fiction can find expression only in the concrete. The elemental forces, then, contribute to the novel with a purpose to provide it with vigorous action. In the novel, force can be expressed in no other way. The social tendencies must be expressed by means of analysis of the characters of the men and women who compose that society, and the two must be combined and manipulated to evolve the purpose—to find the value of x.

The production of such a novel is probably the most arduous task that the writer of fiction can undertake. Nowhere else is success more difficult; nowhere else is failure so easy. Unskilfully treated the story may dwindle down and degenerate into mere special pleading, and the novelist become a polemicist, a pamphleteer, forgetting that, although his first consideration is to prove his case, his *means* must be living human beings, not statistics, and that his tools are not figures, but pictures from life as he sees it. The novel with a purpose *is*, one contends, a preaching novel. But it preaches by telling things and showing things. Only, the author selects from the great storehouse of actual life the things to be told and the things to be shown, which shall bear upon his problem, his purpose. The preaching, the moralizing, is the result not of direct appeal by the writer, but is made—should be made—to the reader by the very incidents of the story.

But here is presented a strange anomaly, a distinction as subtle as it is vital. Just now one has said that in the composition of the kind of novel under consideration, the *purpose* is for the novelist the all-important thing, and yet it is impossible to deny that the *story*, as a mere story, is to the story writer the one great object of attention. How reconcile then these two apparent contradictions?

For the novelist, the purpose of his novel, the problem he is to solve, is to his story what the keynote is to the sonata. Though the musician cannot exaggerate the importance of the keynote, yet the thing that interests him is the sonata itself. The keynote simply coördinates the music, systematizes it, brings all the myriad little rebellious notes under a single harmonious code.

Thus, too, the purpose in the novel. It is important as an end and also as an ever-present guide. For the writer it is as important only as a note to which his work must be attuned. The moment, however, that the writer becomes really and vitally interested in his purpose his novel fails.

Here is the strange anomaly. Let us suppose that Hardy, say, should be engaged upon a story which had for purpose to show the injustices under which the miners of Wales were suffering. It is conceivable that he could write a story that would make the blood boil with indignation. But he himself, if he is to remain an artist, if he is to write his novel successfully, will, as a novelist, care very little about the iniquitous labor system of the Welsh coal mines. It will be to him as impersonal a thing as the key is to the composer of a sonata. As a man Hardy may or may not be vitally concerned in the Welsh coal miner. That is quite unessential. But as a novelist, as an artist, his sufferings must be for him a matter of the mildest interest. They are important, for they constitute his keynote. They are *not* interesting for the reason that the working out of his *story*, its

people, episodes, scenes and pictures, is for the moment the most interesting thing in all the world to him, exclusive of everything else. Do you think that Mrs. Stowe was more interested in the slave question than she was in the writing of "Uncle Tom's Cabin"? Her book, her manuscript, the page-to-page progress of the narrative, were more absorbing to her than all the Negroes that were even whipped or sold. Had it not been so that great purpose-novel never would have succeeded.

Consider the reverse,—"Fecondité" for instance. The purpose for which Zola wrote the book ran away with him. He really did care more for the depopulation of France than he did for his novel. Result—sermons on the fruitfulness of women, special pleading, a farrago of dry, dull incidents, overburdened and collapsing under the weight of a theme that should have intruded only indirectly.

This is preëminently a selfish view of the question, but it is assuredly the only correct one. It must be remembered that the artist has a double personality, himself as a man, and himself as an artist. But, it will be urged, how account for the artist's sympathy in his fictitious characters, his emotion, the actual tears he sheds in telling of their griefs, their deaths, and the like?

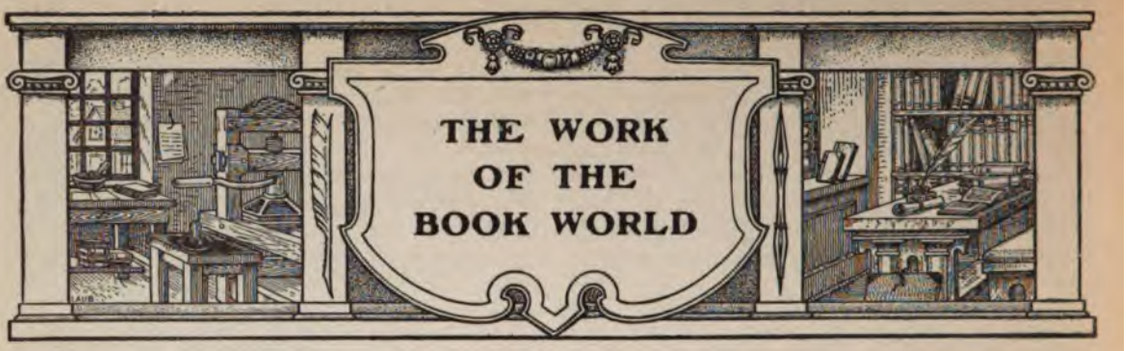
The answer is obvious. As an artist his sensitiveness is quickened because they are characters in his novel. It does not at all follow that the same artist would be moved to tears over the report of parallel catastrophes in real life. As an artist, there is every reason to suppose he would welcome the news with downright pleasure. It would be for him "good material." He would see a story in it, a good scene, a great character. Thus the artist. What he would do, how he would feel as a man is quite a different matter.

To conclude, let us consider one objection urged against the novel with a purpose by the plain people who read. For certain reasons, difficult to explain, the purpose novel always ends unhappily. It is usually a record of suffering, a relation of tragedy. And the plain people say, "Ah, we see so much suffering in the world, why put it into novels? We do not want it in novels."

One confesses to very little patience with this sort. "We see so much suffering in the world already!" Do they? Is this really true? The people who buy novels are the well-to-do people. They belong to a class whose whole scheme of life is concerned solely with an aim to avoid the unpleasant. Suffering, the great catastrophes, the social throes, that annihilate whole communities, or that crush even isolated individuals—all these are as far removed from them as earthquakes and tidal waves. Or, even if it were so, suppose that by some miracle these blind eyes were opened and the sufferings of the poor, the tragedies of the house around the corner, really were laid bare. If there is much pain in life, all the more reason that it should appear in a class of literature which, in its highest form, is a sincere transcription of life.

It is the complaint of the coward, this cry against the novel with a purpose, because it brings the tragedies and griefs of others to notice. Take this element from fiction, take from it the power and opportunity to prove that injustice, crime and inequality do exist and what is left? Just the amusing novels, the novels that entertain. The juggler in spangles with his balancing pole and gilt ball does this. You may consider the modern novel from this point of view. It may be a flippant paper-covered thing of swords and cloaks, to be carried on a railway journey and to be thrown out the window when read, together with the sucked oranges and peanut shells. Or it may be a great force, that works together with the pulpit and the universities for the good of the people, fearlessly proving that power is abused, that the strong grind the faces of the weak, that an evil tree is still growing in the midst of the garden, that undoing follows hard upon unrighteousness, that the course of Empire is not yet finished, and that the races of men have yet to work out their destiny in those great and terrible movements that crush and grind and rend asunder the pillars of the houses of the nations.

Fiction may keep pace with the Great March, but it will not be by dint of amusing the people. The muse is a teacher not a trickster. Her rightful place is with the leaders, but in the last analysis that place is to be attained and maintained not by cap-and-bells but because of a serious and sincere interest, such as inspires the great teachers, the great divines, the great philosophers, a well-defined, well-seen, courageously sought-for purpose.



A SHORT GUIDE TO NEW BOOKS

HISTORICAL AND BIOGRAPHICAL

A Short History of Germany

Mr. ERNEST F. HENDERSON'S work in two volumes (Macmillan. $4. net), is a popular account of German history from 9 A. D. to 1871. It is by no means searching, and often lacking in dignity; trivial anecdotes and a certain smartness of phrasing appear. But it sets forth events and persons—movements to a lesser degree—so flowingly and concretely as to hold the interest, and to make the book of service to readers who desire at this timely opportunity a sketch of German history.——Much the same comment holds true of Mr. THOMAS C. WATSON'S "Napoleon," (Macmillan. $2.25 net) which is a lively, entertaining picture of Napoleon as Mr. WATSON sees him.

Napoleon

Caring little for historical documents, the writer assails the evidence of Napoleon's critics with fervid eloquence, and presents a rather highly colored sketch of Napoleon, "as he appears to an ordinary man," to quote Mr. WATSON, but really to an extraordinary man. For the book, containing nothing new, is interesting largely because Mr. WATSON wrote it.——"Muhammad and His Power," (Scribner. $1.25) by Mr. P. DE LACY JOHNSTONE, is of another sort—a clear, concise and accurate account of Muhammad the man, his teachings, and the growth of Islam.

Muhammad

Like all the books in the series of "The World's Epoch Makers" it is a valuable and authentic biography, at fault only in the matter of a slight Christian bias, that fails to give Muhammad full credit for his strongest characteristic—intense, sincere religious fervor.——Turning again to history, we have in "The Development of Cabinet Government in England," (Macmillan. $1.50) by Miss MARY TAYLOR BLAUVELT, a study of the growth of the English Cabinet from the early circle of royal favorites to the modern group of responsible ministers.

The Development of Cabinet Government in England

Frequent quaint passages from old writers enforce a commendable book, written with uncommon intellectual vivacity.——For treatment of contemporary events we have Mr. PHILLIPS' graphic report of the Boer War, and Mr. SCHURMAN'S study of the Philippines. "With Rimington," (Longmans. $2.50) by Mr. L. MARCH PHILLIPS, has a peculiar value. It is a series of letters written home by a British captain of scouts, who tries to be fair to the Boers.

With Rimington

His testimony was recorded from day to day, while his own eyesight and hearing were giving the lie to anti-Boer stories in English newspapers sent out to him. His comment on the alleged Outlander grievances that caused the war are enlightening; and the volume is a vivid side-light on some very complicated history.——President JACOB GOULD SCHURMAN'S "outlook and retrospect," entitled "Philippine Affairs," (Scribner. $.60 net) is an address by the head of the First Philippine Commission.

Philippine Affairs

It is temperate and hopeful, written by a man who went to the Philippines disagreeing with President McKinley's policy, and after careful study concluded that our efforts there so far are not unworthy of praise. Yet he has many interesting suggestions to offer.——Of an interest quite apart from all these studies is an admirable collection, in two volumes, of addresses delivered before the New England Society of New York City, (Century. $5. net), edited by Mr. CEPHAS BRAINERD, and Miss EVELINE WARNER BRAINERD.

New England Society Orations

The book-making is admirable, and the orations running from 1820 to 1885, with only one or two unavoidable omissions, are distinctly worth preservation. The inevitable eulogy of the Pilgrims appears, of course, in all the addresses, but even the contributions of lesser men than RUFUS CHOATE, DANIEL WEBSTER, MARK HOPKINS and WILLIAM CULLEN BRYANT—all of whom are represented—discuss the national affairs of their respective periods so spiritedly that the addresses are not only monuments to the glory of New England, but important notes on American political development.

RECENT FICTION

A fine, fresh story of vigorous fighting and pure, deep love, makes Mr. STEWART EDWARD WHITE'S "The Blazed Trail" (McClure, Phillips. $1.50) a very epic, alive with human passion and vibrant with the great mysterious voice of nature. Harry Thorpe, silent, masterful boy, becomes Thorpe, the lumberman, boss of the Fighting Forty crew of lumberjacks, who wages a long fight against storm and flood and vicious enemies in the pine woods of Northern Michigan, until he finally wins not only success, but, more, a very lovable maiden. Concrete, vivid, written in a style that shows a marked improvement over "The Westerners," "The Blazed Trail" is a rich and satisfying treatment of actual American life, full of promise for the writer's future.——Mr. HAMLIN GARLAND'S latest book, "The Captain of the Gray Horse Troop" (Harper. $1.50), on the other hand, is disappointing. In one aspect it is the love story of a stiff and rather Puritanic army officer and a Senator's daughter who, though not without charm, at one time speaks of Millet as a "dead duck"; in another aspect it is a tract on the Indian question. In showing Captain Curtis' efforts to protect his Indian wards against the cattlemen, it gives some good pictures of the Indians, but it possesses enough of the sermon element to stifle the freshness and force that Mr. Garland's earlier work has taught us to expect of him.——Mr. JOSIAH FLYNT in "The Little Brother" (Century. $1.50) also falls short of his best. The "little brother" who becomes a tramp is drawn with some skill, and his novel experiences "on the road" smack of actual history, but his sister's life in a little Illinois village is very flat fiction. Mr. Flynt might wisely confine his writing to the underworld he knows so thoroughly; there his work is always good.——More Western life is shown in "Red Saunders," by Mr. HENRY WALLACE PHILLIPS (McClure, Phillips. $1.50), a collection of short stories, in three of which Red Saunders, cowboy, tells of dramatic passages in a checkered life. In the fourth, the writer tells how Red Saunders came home and revivified an Eastern village. The stories are not far above journalism,—they lack the dignity of Mr. Wister's cowboy tales, for example; but they are fresh and convincing.——Such books as these picture outdoor life with an atmosphere of health. A new novel of South African life, by Mr. DOLF WYLLARDE, "The Story of Eden" (John Lane. $1.50) describes a country as full of charm as our West, cursed with a society whose dearth of morals is its distinguishing feature,—a capably written book, developing an intelligently-managed plot before a well-filled background, but lacking in moral elevation. It is a South African "Tess," without the purification of tragedy.——The loves of Maxwell Heron and Joyce Faa, and Captain Tredennis and Marion of the Isle, however, in Mr. S. R. CROCKETT'S "The Dark of the Moon" (Harper. $1.50), are pure and highly romantic, and the book, though hardly more than a series of adventures thrown together, takes the taste of "Eden" from one's mouth. There is much Scotch dialect; there is the heroine in doublet and hose, now demanded, apparently, by the canons of the historical romance; the point of view follows the whim of the author and not the logic of possibilities—altogether it is no work of art; but it is a pleasant, entertaining, careless tale of Scottish love and war and outlawry in the eighteenth century.——"Captain Jinks, Hero" (Funk & Wagnalls. $1.50), by Mr. ERNEST CROSBY, is an amusing satire on our recent war history. It follows a puppet hero through West Point and the Spanish and Philippine Wars. It is not well done,—it required only six weeks to write it,—nor is it convincing; but an occasional satirical shaft hits its mark. What Mr. Crosby has to say deserves a better, more dignified saying.——Sherlock Holmes, resurrected, comes to the relief of jaded readers to elucidate in Mr. CONAN DOYLE'S "The Hound of the Baskervilles" (McClure, Phillips. $1.25) a new mystery. A man is killed—according to report by a gigantic phantom hound, whose baying is heard at night on a lonely moor. The scientific Holmes does not believe in the phantom, of course, and with the assistance of Dr. Watson proceeds to find the murderer. The reader at first enjoys delicious thrills, later follows with interest details introduced simply to complicate the plot, and finally finishes the story with a mild satisfaction. It is a good story, but it begins so thrillingly that the end is in the nature of an anti-climax.——This good translation from the French of MARCEL PREVOST by Miss ELLEN MARRIAGE (Crowell. $1.50.) is a study of the femininists, or those who labor for the advancement of woman, in England and France. A number of women unite for the purpose of obtaining industrial independence and to renounce marriage. The story tells how one is almost overcome by the arch enemy, love, but finally emerges triumphant in the support of the cause; she rejects her lover in the presence of an admiring chorus. It is possibly a realistic picture, but leaves the impression of overstrained sentiment and a very poor ideal which stops short of vigorous and wholesome living.——

The Blazed Trail

The Captain of the Gray Horse Troop

The Little Brother

Red Saunders

The Story of Eden

The Dark of of the Moon

Captain Jinks, Hero

The Hound of the Baskervilles

Frederique

Mr. HERBERT M. HOPKINS' novel, "The Fighting Bishop" (Bowen-Merrill. $1.50.), deals with the Rt. Rev. Patrick Ambrose's domestic battles, and not with the ecclesiastical conflicts in which he won his title of "the fighting bishop of Toledo." Seven self-willed sons prove even harder to coerce than a recalcitrant diocese, and the bishop's effort to rule well his own house results in failure. The figure of the passionate, tyrannous but warm-hearted, old churchman is sympathetically drawn, and Mr. Hopkins has managed to impart a distinct individuality to each of the sons, while emphasizing certain traits which they have in common.——

The Fighting Bishop

In keeping with a recent commendable impulse to exploit the South in fiction, we have three Southern novels, all of more or less merit. Mr. GEORGE CARY EGGLESTON'S latest story (Lothrop. $1.50.) presents a pretty picture of Virginia just before the war. The three leading figures are a superlatively perfect hero, a very charming and human heroine and a self-sacrificing friend. The story tells the simple development of a love with considerable delicacy and charm. The occasional lapses of taste do not greatly mar the story.——Mrs. LUCY CLEAVER MCELROY'S romance of pioneer life in "old Kaintuckee" (Crowell. $1.50.) is made up of a lover's adventures in rescuing the heroine from her captivity with the Indians. It is filled with wild and grim adventure, but lacks the touch of reality and of art. Daniel Boone, who is a leading character in the story, is by all odds the best creation of the book.——Lastly Mrs MARY TAPPEN WRIGHT has written a novel (Scribner. $1.50.) which shows how alien still is the spirit of the North from the spirit of the South, as well as the strife between black and white. But the author's evident delight in tragedy dominates chapter after chapter. The men are for the most part weak or wicked, the women unfortunate, and all things work together for evil. It is a book all pessimists will enjoy.——With an entirely different atmosphere "The Beau's Comedy," a collaboration by Miss BEULAH MARIE DIX and Miss CARRIE HARPER (Harper. $1.50.), is an exceedingly even and daintily written romance in which a London beau in the time of George I. becomes an enforced laborer on a pioneer Puritan farm in Massachusetts. The picture of London society is more convincing than that of colonial Massachusetts, but the story is interesting and is more than ordinarily well written.——"Naughty Nan" (Century. $1.50.) is a bit disappointing. JOHN LUTHER LONG can write a short story charmingly. He has shown his mastery in this form of story-telling in everything he has done. "Naughty Nan" is a short story drawn out to the length of a novel. But no matter how delightful and piquant the dialogue, four hundred pages of conversation, chiefly between two people in a New York drawing room and a hospital, become monotonous simply from the form into which the story is thrown. It is a pity, too, for Nan and Jock would otherwise be as delightful as any of Mr. Long's creations.——

Dorothy South

The Silent Pioneer

The Aliens

The Beau's Comedy

Naughty Nan

Miss EDITH ELMER WOOD'S short stories (Holt. $1.50.), while conventional in subject and limited in scope, are often lighted by an unusual gracefulness of style. ——And in "Policeman Flynn" (Century. $1.50.) Mr. ELLIOT FLOWER'S sketches of a clever Irish policeman are a wealth of rare and subtle humor somewhat reminiscent of Mr. Dooley. Policeman Flynn is a vividly realized character, as clear cut as any in recent American fiction.——A very daring book is Mrs. GERTRUDE ATHERTON'S, "The Conqueror" (Macmillan. $1.50), a biography of Alexander Hamilton, in which "the unattractiveness of fact" is ornamented with "the grace of fiction." It does not actually override authentic history, but bare historical events are imaginatively expanded into apocryphal scenes of the fullest detail. Hamilton, moreover, walks such a demi-god that he seems the exaggerated hero of romance as often as the accurately proportioned subject of a biography. But he never quite seems either; and though Mrs. ATHERTON has produced a highly fascinating book, a pure romance or a picturesque biography—if written with the power exhibited here—would have been better than this somewhat teasing hybrid, capable and interesting as it is.

Shoulder Straps and Sunbonnets

Policeman Flynn

The Conqueror

MISCELLANEOUS

Into "The College Student and His Problems" (Macmillan. $1 net) Mr. JAMES H. CANFIELD, Librarian of Columbia University, has compacted a mass of pithy advice to college students who wish to make the most of their college life. Such problems as the choice of a college, athletics, electives, and the choice of a life-work, problems that every student must face, are treated simply, right-mindedly and helpfully. And when after reading Mr. CANFIELD'S book one turns to "The Mind of a Child" (Longmans. $1 net), by Mr. ENNIS RICHMOND, the English writer on education, one imagines the educational "faddists" hiding their heads. Mr. RICHMOND says some excellent things, old in a way, but doubtless new to the "faddists" who study "the child" instead of children; and like Mr. CANFIELD, he talks from the fulness of experience. He shows how fathers and mothers can do their parental

Education

duty better than most of them do it now.

Mr. F. P. DUNNE's latest Dooley book "Mr. Dooley's Opinions" (Russell. $1.50) falls off in no way from its predecessors, and even contains some conversations unsurpassed by anything the sage of "Ar'rchey Road" has uttered. Mr. GEORGE ADE, too. though of smaller calibre than Mr. DUNNE as a humorist has so pointedly derided certain comic types in the astonishing slang of "Forty Modern Fables" (Russell. $1.50) that the sketches have power to amuse even those who do not like that sort of thing. Mr. JOHN KENDRICK BANGS, on the other hand, makes rather labored fun in "Mr. Munchausen" (Noyes, Platt. $1.50). The well-known baron continues to prevaricate in Hades, too often merely tolerably, but on occasion with enough imagination to entertain.

Humor

In "The Anthracite Coal Industry" (Macmillan [illegible]) [illegible] accumulated. The novel idea gave impulse to genius, and Sir Joseph Paxton planned a unique house of glass. In the spacious halls and corridors of this glittering fabric were displayed the products of the world. So dominant was England's contribution, in quantity, in quality, in variety, that a complacent people accepted this confirmation of statistics, and claimed a practical monopoly of manufacturing. England was first, and the rest nowhere—that was the lesson of the Exhibition of 1852.

The Crystal Palace—re-erected in a beautiful park in a southern suburb of London—this year celebrates its Jubilee. The manner of that celebration is as striking, as charged with significance, as was the original exhibition. The industrial changes of half a century are crystallized in the sentence that announces that the forthcoming exhibition will consist exclusively of American products. That such an exhibition, properly carried out, must attract great attention, there is no doubt. The faint hint of a daring challenge to comparison will appeal to the public generally; and manufacturers will have a natural curiosity to inspect the methods and products of actual or possible rivals. It is known that the King eagerly desires that the Coronation shall be the most brilliant pageant of his lifetime, and that no effort in that direction shall be spared. It is believed that the number of foreign, colonial, and country visitors to London will exceed by many thousands the highest records of the past. This forecast is already partially confirmed by the reports of hotel keepers, estate agents, and those concerned with the letting of apartments and furnished houses. A fair proportion of this temporary addition to London's population will certainly visit the Crystal Palace. Hence the Exhibition will tell its story, not alone to the English people, but to our countrymen on their travels, and to thousands of

Mr. A. H. MALAN adds to his earlier volumes this richly furnished collection of accounts of famous Scotch and English manors. Though the descriptions and histories are written by various titled personages, the value of the book lies in what the editor and the publishers, rather than the writers, have done. The two hundred photographic illustrations are excellent, and the setting they have been given by the book-maker's art is in thorough keeping with the luxurious suggestion of the castles and palaces pictured (Putnam. $6.50 net).

Other Famous Homes of Great Britain

Mr. HUGO HIRSH gives a lucid compilation of the varying grounds for divorce in the different States and Territories. (Funk and Wagnalls. $1.50 net.)

Tabulated Digest of the Divorce Laws of the U. S.

Mrs. FLORENCE HULL WINTERBURN's little book contains [illegible]

The inception of the Exhibition idea is due to Mr. Ernest Schenk, the very energetic Managing Director of the Crystal Palace Company; but the vigorous and patriotic coöperation of the American Society in London has helped him. The society has entered into correspondence with United States and State officials, and its members as individuals have brought the project to the notice of their business correspondents at home; and the result of their efforts, and of those of Mr. Alfred H. Post, the New York Commissioner, is that the success of the enterprise is assured.

One of the cherished aims is to emphasize the international interdependence of interests. With this end in view, English companies which have been organized to manufacture and exploit American inventions are eligible for entry as exhibitors. In such a class is the Linotype Company, the capital of which is entirely British. Though the machines are made in England, they are entirely the result of American ingenuity; and the English company derived its right to manufacture from the parent corporation of the United States. So also with the British Westinghouse Company, and with certain sorts of shoemaking machinery manufactured in this country under license from the United States.

NOVELTIES FOR THE BRITISH PUBLIC

AMONG the novelties in display, will be the exhibit of the General Electric Company of New York. That company has secured the whole of the court which in ordinary times is used at the Palace to display the arts of Ancient Rome; and so the sculptured Julius Cæsar will give place to the dynamo, and immobile Brutus to the fast moving pictures of the biograph. For it is by this silent method that the Electric Company proposes to display its machinery in motion. So far as London is concerned, this idea is novel.

The spectator may witness all the involuted movements of complicated machinery without noise, dirt, dust or danger. All the American typewriters represented in London have combined for the purpose of exhibiting; but the agricultural machine makers prefer to be independent of one another, and make separate exhibits; as also do the houses dealing in American shoes, and those selling sewing machines and bicycles. It is not expected that any linen will be washed in public; but if not, it is hard to see how the company that is going to exhibit an elaborate laundry plant, can make an adequate display of machinery in motion. Among the displays that will attract attention will be that of Huyler's Candy Store, which has attained international reputation through the popularity of the "Belle of New York." A section will be devoted to food products of all kinds, another to textile fabrics, another to medicines and surgical and dental appliances, and space is reserved for musical instruments and photographic and optical appliances.

The exhibits and classes mentioned are not intended to exhaust the list by any means, and they are only selected that they may illustrate the comprehensive scheme which has been laid down. A successful effort has been made to prevent the exhibition from being a mere display of bottled and canned foods. Food products will naturally hold an important place, but there will be plenty of other things.

The lighter side has not been neglected. The extensive and beautiful grounds provide ample room for the provision of outdoor amusements. The large lake is being cunningly manipulated by an old Coney Island man, who is arranging for novel and exhilarating water pleasures; and American motor cars will be employed to take people about the grounds.

The English press has been very cordial towards the Exhibition, and has welcomed the project of seeing in a lump, what the "American Invasion" really means. It is already certain that the display will be entirely creditable, and may perhaps be imposing. It will satisfy the aims of its projectors if it shall turn out a comprehensive, electric, practical, display of American manufactured and other products.

YANKEE INGENUITY SELLING GOODS

IT is undoubtedly true that a large proportion of goods which have been going abroad from the United States in growing quantities have found their market primarily because of excellence and the ingenuity with which they are made and improved from earlier models. American ships are carrying only eight per cent. of our goods abroad and there are few American commercial salesman abroad. Nor does the local manufacturer as yet know all the best methods for reaching the foreign market. The consuls have done what they could, and the exporters also, but the superior quality of the product and the Yankee inventiveness back of it, are the reasons for our advances.

It has been this, for example, which has brought to this country large orders for machinery tools to go to the great British arsenal at Woolwich, England, where the big guns are made for the British army and navy. These orders included screw-machinery for making screws used in guns, gas-furnaces for annealing, hardening and tempering steel, steel-cutting saws, rules, levels and various sorts of machine tools. The Government small arms factory at Birmingham also has in use various American labor-saving devices and tools. American gas-furnaces are also used for annealing coin blanks in the Royal mint in London and in the Royal Dutch mint. An order for assaying apparatus for the English mint has recently been alloted an American concern. An American pneumatic plant for riveting and drilling is to be laid down in the English Admiralty dockyards at Portsmouth. Other machine tools of various kinds are on trial in the dockyard. American pneumatic tools are already put to various uses in many localities, and Chief Constructor Schwartz of the Imperial Navy is understood to have made a report to his Government recommending liberal extension of compressed air equipments. A big English plant has recently been outfitted with a single order of American machine tools aggregating in value over $400,000. American pneumatic tools are used in increasing quantities in the Japanese Government dockyards and railway shops.

THE RISE OF THE AMERICAN ELEVATOR

IN common with many other things, elevators have been brought to a higher perfection in this country than anywhere else. American elevators are to be found in every part of the civilized world where there are buildings tall enough to require them. Quite recently considerable shipments have been made to Great Britain and Germany, and fairly large orders have been placed in Belgium, Spain, Hungary and South America. One of the recent contracts placed here called for the installation of electric elevators in Buckingham Palace, London. The order provides for one elevator for the Royal Privy Purse Department, one baggage "lift," and one dinner elevator to connect with the state dining hall. The American elevators will take the place of the old hand power "lifts" installed in the Royal Palace during the late Queen's reign. An electric dinner waiter apparatus has also been ordered for the Royal

residence at Windsor, and the Duke and Duchess of Cornwall's London residence, Clarence House, is equipped with an American "luggage lift." The principal hotels and office buildings of Continental Europe have American elevators for the convenience of their patrons and tenants. They are not operated, however, at the same high speed at which they are run in this country.

A MISCELLANY OF FOREIGN TRADE

A STEEL works at Cleveland, England, one of the largest rail producers in Great Britain, is shortly to be equipped with an extensive American electric-power plant. It will be one of the most extensive plants of its kind in the United Kingdom. This will make the second steel works in Europe to be entirely equipped with American electrical machinery. A big steel plant at Antwerp, one of the most extensive in Continental Europe, was the first. The latter plant has also a complete American electric light works.

Not content with reaching through the regular channels of world trade, American manufacturers, inspired by ancient example, are blazing new commercial trails. There is now a regular quarterly sailing of ships carrying nothing but American manufactures to Sierra Leone on the West Coast of Africa. The cargoes comprise everything, from yellow pine lumber to canned tomatoes. Another steamer sailing to the Dutch East Indies from New York carried a miscellaneous cargo of manufactures and 3,000 tons of wrought iron piping. This portion of the cargo was discharged at Palembang, Sumatra, for use in the oil fields there. A large American house, which has in the past had extensive trading relations with the Australian colonies, is establishing branch houses in the East at Constantinople, Salonica, Smyrna, Alexandria, Odessa and Beirut, and purposes selling cotton goods, furniture, hardware, clocks, watches, leather, rubber shoes, harvesting machinery, agricultural implements, jewelry, perfumery, fine stationery, lard, tallow and other articles. Inquiries have already been received for windmills, kalsomine material, air rifles and blotting paper.

An automobile factory in Toledo, Ohio, recently received an order for three high-power steam automobiles to be shipped to Cape Town, South Africa, for the use of British army officers. In view of the recent origin of the automobile industry in this country, this exportation is of remarkable significance.

Recently the contractors having in charge the work of cutting the wonderful Simplon tunnel under the Alps, between Switzerland and Italy, purchased in the United States two compound high-pressure compressors. These machines will be utilized for furnishing compressed air for the purpose of operating mine locomotives used in the tunnel work. One compressor will be installed at Brig, on the Swiss side, while the other will be placed at Isalle, on Italian territory. This export is recorded because within striking distance of where the machines are to be used most of the compressors used in Europe are manufactured.

AMERICAN TRADE IN THE FAR EAST

UNTIL three or four years ago, with the exception of small shipments to American missionaries, consisting of groceries, books, scientific instruments, school furniture, etc., and amounting to some eighty tons a year, no American goods came direct to the markets here. Singer sewing machines were bought in Hamburg, and meats canned in Chicago brought from London, but dealing direct with American manufacturers or exporters was considered out of the question. Many prejudices have been battered down since then, and now, in Syria and Palestine, American agricultural implements, beer, canned provisions and groceries, leather, pumps, phonographs, rubber shoes, sewing machines, windmills and wire nails have a pretty firm foothold, while promising experiments are being pursued in coal, cotton fabrics, farm machinery, flour, furniture, irrigation contrivances, iron and steel, lamps, lumber, paints, paper, patent medicines, shoes and watches. American mechanics' tools and small hardware may be said to have passed the experimental stage and our trade with Syria in these articles is fairly well established.

Special difficulties have been encountered in the American demand for cash in advance, but the question of terms of payment is becoming less formidable with the advent of American commercial travelers and direct and regular steamers which tend to build up closer relations and mutual confidence. Our trade with Syria is still of small importance, if one simply looks at the present amount of business transacted; the future, however, holds out promises for this country which is as yet undeveloped and unexploited and for our commerce with it.

AN AMERICAN COLLEGE AT BEIRUT

AT the American College in Beirut was started two years ago a School of Commerce, the only one of its kind in Turkey-in-Asia, and it promises to play an important part in the economics of the Levant. The College has more than 600 students, hailing from Egypt, Greece, Asia Minor, Persia and Syria, including Palestine, and the commercial students who will graduate next year, after a three-year course, as Bachelors of Commerce, may be depended upon to exert much in-

fluence on their return to their respective homes, stimulating enterprise, introducing modern tools and machines, opening up new markets. While showing how the natural resources of these regions may be developed and utilized to better advantage, they will endeavor to lift business up to Occidental standards of morality. In connection with this school of commerce it is proposed to open up in the near future an International Commercial Museum. The College is perhaps the largest American institution of learning in the world outside of the United States. Besides Arabic, Turkish, French and German instructors it has sixteen American professors and tutors, fourteen of whom are graduates of American colleges. Its campus has an area of thirty-five acres and comprises thirteen buildings; nearly half a million dollars are invested in this enterprise. The foreign trade of the Levant amounts to about $375,000,000 of which $205,000,000 represent imports.

DETAILS OF OUR TRADE WITH SYRIA

LOOKING at things from an American commercial point of view, it seems that by buying the Syrian raw silk, of which about $5,000,000 worth is exported each year to France, and which in all essential particulars resembles the Italian silk, of which product the United States buys more than $10,000,000 annually, we should get into very intimate relations with this country which in return would heartily welcome our manufactures. We buy now nearly all the wool, licorice root and bitumen which Syria produces, besides rugs and other Oriental goods, but silk is to Syria what wheat is to our Northwest, what cotton is to the South. Perhaps none of our manufactures will find a more inviting field in Syria than agricultural and irrigation machinery. In this line a little start has been accomplished, but mostly by way of experiment. However, the demand in Western Asia for such machinery is likely soon to become general and leap into importance as the antiquated tools and methods of 2000 years ago, still in vogue here, seem about to be replaced by a new order of things. The completion of the Bagdad Railway will close the chapter of desolation and exclusiveness in Turkey-in-Asia. With it will dawn a new era for the Empires of the Old Testament.

Orders have been sent to the United States since New Year's for a steam threshing outfit and twenty harvesting machines. Also for a hydraulic ram and a petroleum engine. Some sixty oil engines of German and English manufacture have been sold in Palestine during the last year or two, and some American self-binders bought in Hamburg have entered this country via Haifa. But, generally speaking, the orders mentioned are pioneers and advance agents of Western civilization, proclaiming the approaching industrial redemption of these ancient lands which are but shadows of their former selves. The plains of Jezreel, Hauran and Bekaa especially present suitable opportunities for the employment of both farm and irrigation machinery. Enterprising agents for American manufactures of this kind, when in Europe, should be ordered here to canvass the field and form connections, help to make experiments with the machines a success and teach the natives how to run and repair them.

THE CONDITION OF JAPANESE LABOR

FOR more than two years political economists have been concerned to find the cause of the business depression prevailing in Japan, and various diagnoses of her case have been made by Japanese statesmen and by foreign merchants doing business in her ports. The dullness, which has been a noticeable feature in trade circles, has been ascribed to the disparity between exports and imports, to want of capital, to lack of faith in the business integrity of native dealers, to the law prohibiting alien ownership of land, to the natural reaction after a period of extraordinary activity, and to various combinations of these causes with each other and others more remote, but one contributory cause of great importance has been quite generally overlooked. The weight which is holding Japan down, hindering her attempts to expand her commerce, preventing her from taking the place she covets among the foremost ranks of civilized nations, is her cheap labor.

The Japanese laborer does not receive an average of fifty ten, or twenty-five cents American gold, a day. A native of good education, well qualified to form an accurate estimate, said that from $6 to $8 per month would be about the average of the combined earnings of a man and wife. This exceedingly low price does not mean that the employers are enriching themselves by grinding down the toiling masses. The low prices are in part a survival of the different standards of value which ruled while Japan was isolated from the rest of the world, but labor is cheap *mainly because its productive power is small.*

A foreigner going about the streets, visiting the workshops, the wharves and docks, or passing along the country roads, is continually impressed by the waste of human force. A pile is to be driven, and eight or twelve men are employed to lift a weight by means of a primitive pulley, and let it fall on the head of the pile. A ship is to be coaled, and a swarm of men, boys, women, and girls appear to carry the coal in baskets from the coal sheds to the ship's hold. Men take the place of horses for drawing loads; the farmer uses only the simplest implements, and does his

work with the greatest expenditure of labor for the least return. Everywhere one sees the same careless disregard for the conservation of human energy. Besides this misapplication of strength, the Japanese is not usually a hard worker; he dawdles, he stops to talk or to smoke, he wastes his time in studying over some unimportant detail, so that it frequently taxes four or five men to do the work which one American would easily finish.

PRODUCTION IN JAPAN AND THE UNITED STATES

THE difference in productive capacity is strikingly and yet fairly shown by a comparison of the exports of Japan and the United States. In 1900, Japan, with a population of 41,089,940, exported goods to the value of $107,035,100, an average of $2.60 to each inhabitant. The same year, the exports of the United States, with a population of 76,304,799, amounted to $1,478,050,000, an average of $19.37 for each person, or more than seven times the average for Japan. This cannot be taken to mean that Japanese labor is only one-seventh as productive as American, for we have no means of ascertaining what proportion of the product of labor was retained at home, but the standard of living among the laboring classes, that is, among the majority of the people of the Island Empire, being necessarily very low, it is quite conservative to place the productive capacity of one American as equal to that of four Japanese.

This indicates that nearly all the energy the people are now capable of putting forth is needed for mere existence, and very little can be utilized for making progress in industrial and commercial lines, or for education and culture. While the nation continues able to produce only so small an amount for export, and all, except a few of the higher classes, are too poor to buy more than the barest necessaries, commerce cannot increase, foreign investors are unlikely to place their funds where so low a rate of production prevails, and progress along every line of development is hindered.

SOME REASONS FOR A CONTRAST

THE cause for this low productive capacity has its roots deep in the native temperament, and the teachings and customs of generations. The people have not recovered from the effects of centuries of serfdom; no man hopes to raise himself much above the station in which he was born, nor does he feel the necessity of providing against the possibility of want in his old age, or of leaving a competency for his wife and children. Filial duty is strongly inculcated, and when the son has reached maturity, the father, although still in the prime of life, retires from business, to spend the remainder of his days in leisure, while the son becomes the head and support of the household. If there are daughters but no son, a marriage will be arranged with a younger son of another family, with the provision that the bridegroom shall take the name of the bride's family, of which he becomes the head and support. A childless couple usually adopt a little one, whom they care for in youth so they may have some one to care for them when they are old. Family pride and the custom of the country demand that the head of the house should supply the wants, not only of his parents, but of all members of the family, and thus almshouses and charity organizations are almost unknown here, for it seldom occurs that there is not some relative charged with the maintenance of the unfortunate who is unable to provide for himself. Looked at from this point, the system or custom seems admirable, but there is another side.

It often happens that a bright, careful, energetic young man finds himself burdened with the support of a large family, several of whom are perfectly capable of caring for themselves, but they will not exert themselves so long as they know he is in receipt of a good income. There is nothing to encourage or spur his efforts, since any addition to his income will be eagerly seized. The feeling which pervades all classes is thus one of easy-going complacence. This assurance and the entire lack of wearing anxiety and nervous strain no doubt engenders the happy good nature which is so marked a trait of the Japanese character, but it does not tend to the production of wealth, the inauguration of important enterprises, the growth of commerce, or the advancement of civilization.

The enormous strides which the United States has made toward power and wealth and a controlling place in the world's commerce have come, not so much from the exceptional opportunities offered by her fields, forests and mines, as from the nervous, resistless energy of her workers, and it is precisely the lack of this quality which is holding Japan back from the goal her leading statesmen have set for her. The productive power is increasing, and wages have advanced, have almost doubled in the last ten years, but they need to go much higher—high enough to necessitate the use of labor-saving machinery, high enough to open a market among the working people for some of the imports Japan will take in exchange for her exports, high enough to induce a standard of living which shall tend to the moral and intellectual uplifting of the laboring masses.

SHIPPING ON THE PACIFIC COAST

FOR ten years at least trade conditions in San Francisco have been at a standstill, but at the close of the Spanish-American War there

came a change. Though there is recorded a tremendous increase in outbound tonnage destined for Oriental ports, the most significant development is the establishment of relations with the Southern American republics, the absence of which had long been a stigma on the enterprise of Californian merchants. The new situation came about through a rupture of the traffic agreement between the Pacific Mail Company and the Panama Railway. The former had secured a monopoly of the trade of the Western Coast north of the isthmus, and made no effort to compete for the Southern traffic which fed the railway. The Pacific Mail proceeded to invade its rival's territory, and soon afterwards the Kosmos line extended its run to San Francisco. The Kosmos is a great German corporation, owning a fleet of twenty-five big steamships plying between the principal ports of South America and Mexico in this hemisphere, and Italy and Hamburg. The venture of this corporation was so productive that the "Pacific Steam Navigation Company," whose thirty-eight steamers control the bulk of the South American carrying trade, also extended its lines to San Francisco. Later, the "Compania Sud Americana de Vapores" engaged in the competition with a service between the Golden Gate and Valparaiso, and a newly-organized British-American line has put on its steamers between San Francisco and Callao, Peru, stopping at the way ports. Including the Pacific Mail Company, there were now five lines of steamers in this coastwise business. The measure of success has been so great that the Pacific Steam Navigation Company has ordered recently six twin-screw, eighteen-knot, 5000-ton passenger steamers, and the "Compania Sud Americana" is building a splendid passenger boat of similar dimensions. In years prior to 1901, San Francisco's exports to South America averaged less than one-half a million dollars per annum. Last year they increased to two million dollars.

COMMERCE WITH HAWAII

SINCE annexation there has been a most satisfactory increase in the commerce with the Hawaiian Islands. Three steamer lines were enough to supply the needs of the service; now there are five lines. One new corporation enters the business with a fleet of six large steamers; four of 8,500 tons and two of 12,000 tons. Though organized to carry Hawaiian sugar to New York via the Straits of Magellan, a recent traffic arrangement with the Panama Railroad limits their route to Honolulu, Panama and San Francisco. The Oceanic Steamship Company has added three 6000-ton steamers to its service between the United States and the Australian colonies, and has inaugurated a steamer line to Tahiti. The *Sierra*, *Sonoma* and *Ventura* were built for the Oceanic Steamship Company at Cramps' shipyard, are twin screwed, and are guaranteed to make seventeen knots per hour. Already they have materially reduced the time between the terminals, Sydney and San Francisco, and in the carriage of mail can now make better time between Australia and England than via the Brindisi route. The Tahiti service was inaugurated in 1900 in consonance with an arrangement with the French Government, and it provides for a yearly subsidy of $30,000 for eleven round trips annually. Already the line has doubled our trade with the islands.

THE DEMANDS OF THE ORIENT

MORE important than these developments is the increase of traffic between the United States and the Orient. The ships of the three companies plying between San Francisco, Yokohama and Hong Kong, have proved insufficient to carry the freight offered, and space has had to be contracted for eight months in advance. This has led the Pacific Mail to add two eighteen-knot steamships, the *Korea* and the *Siberia*, to its fleet. These giant vessels, 18,000 tons register, have both been launched, and before long will be on the Pacific. The Japanese line, the Toyo Kisen Kaisha, whose steamers have been extraordinarily successful, has just placed an order in Japan for two steamers of similar capacity to the *Siberia* and *Korea*, so with these and the immense cargo carriers being built for J. J. Hill at New London, already described here, and the tramp steamers irregularly plying between Indian, Chinese and Pacific Coast ports, the Pacific carrying trade should be well served.

Nor does the development stop here. The East China Railway Company is building at Trieste, Austria, four 5000-ton sixteen-knot steamers, which will carry the Trans-Pacific mails between Vladivostok or Port Arthur and San Francisco. Two of these vessels, the *Manchuria* and the *Mongolia*, have been launched, and the service will soon be inaugurated. This corporation, which is being operated by the Russian Government, controls a fleet of twenty-eight steamers, now trading in the Yellow Sea, and when the Trans-Siberian Railway is finished, this fleet will serve as an auxiliary for the collection and distribution of freight.

With the Philippines trade has hardly yet begun. In addition to the transport service of the Government, the Pacific Mail has just inaugurated a monthly service between San Francisco and Manila. A new corporation, the Philippine Transportation and Construction Company, is arranging for a regular monthly service in connection with a system of steam barges

plying between Manila and the islands of the archipelago. The Royal Packet Company of Java is about to put on one of its big steamers between Batavia and the West Coast of the United States, calling at Chinese and Japanese ports *en route*.

Today San Francisco is the second shipping port in the United States.

THE RAPID TELEPHOTOGRAPH

NEXT autumn the Imperial German postal administration will begin the permanent working of the telegraph line between Berlin and Cologne by means of the wonderful new system of Messrs. Anton Pollak and Joseph Virág, of Budapest. In all probability England and America, the two biggest telegraphic nations on earth, will be the next to follow suit. The British General Post Office has a highly favorable opinion of the sensational invention, and the American experts were simply delighted with it when they had a chance of seeing it at work in Budapest, Berlin, Fiume and other places, as well as in the United States, where extended trial demonstrations were made by the two-named Hungarians on various lines between Chicago on the one hand and New York, Milwaukee and Buffalo on the other. In America and Europe the tests to which the Pollak-Virág system was put, and all of which it stood splendidly, resulted in the fairy-like speed of, according to the respective tensions and resistances, from 60,000 to 150,000 words per hour, or 70 to 220 characters per second, although the invention—officially called "rapid telegraph," whereas in reality it is a telephotograph or phototelegraph, no "knocking" at all being done in connection with it—was then far from its present perfection, which enables it to produce as many as 160,000 words per hour on a single wire if the voltage (tension) and resistance of the line be sufficient, and to obtain telegrams in ordinary handwriting instead of in a variation of the Morse alphabet.

To arrive at all this, extraordinary ingenuity was required, more especially in the thinking out of certain technical details destined to substitute handwriting for the former signs and to combat the disturbing influences of various currents and vibrations. Everything has been managed so excellently that the apparatus, though looking rather complicated, is a marvel of simplicity in construction and handling. The chief advantages are an enormous speed on wires with very low voltage currents, a permanent and clearly legible automatic record in usual handwriting, automatic control of the receiver from the sending station, transmission from perforated paper and automatic receiving by photographing the movements of telephones' diaphragms (membranes).

In the preparation of the message the endless paper strip, which is seven millimetres broad, is perforated just as in the Wheatstone system.* Five rows of dots, dashes and ringlets represent the resultant writing, which, by the way, does not, as with the present system, appear in one long, endless line, but in as many lines as requisite under one another. Two electric brushes—one positive, the other negative—composed of fine wire, are mounted above a sort of flanged drum, or cylinder, and arranged to press the paper firmly against it. A single movement of the clerk's sets the apparatus to work; everything else goes on automatically. The brushes send the currents into the receiver by way of the line. In the receiver there are two telephones, connected with an ingeniously arranged little concave mirror, which is kept suspended by means of a small plate of soft iron, fixed to a permanent magnet. The vibrations of the telephone's diaphragms, or membranes, communicate a corresponding movement to the mirror, whose task it is to concentrate the rays of a small incandescent lamp upon part of an endless strip of sensitized paper, nine centimetres wide, and connected with a lens. The lamp is encircled by a cylindrical envelope, through a slit of which the luminous point reflected on the mirror (*i.e.*, the message) is transversely displaced on the sensitized band, moving from left to right. After being exposed to the light, the paper passes into the automatic developing apparatus in such a way as to pass successively, and in the proper order, the photographic baths necessary to develop the marks. As soon as a telegram is ready to leave the apparatus in a finished state, the clerk at the receiving station, who keeps a constant watch on the transmitted signs through a small red window, presses against a pair of automatic scissors, which cut the telegrams off the strip, whereupon it drops out through a slit in the receiver. In spite of the fabulous rapidity of the process, the writing obtained is infallibly clear and legible, whereas too quick "knocking" on the Morse transmitter, as is well-known, is apt to produce illegible messages.

Because the number of apparatus operators and the amount of wire required are infinitely smaller than in the systems in use at present, and because the repairs do not count for much, the cost of telegraphic manipulation on the Pollak-Virág system is considerably lower than in any other; consequently the tariffs may be lowered correspond-

*Great firms, banks, daily papers, Government offices, authorities and other big customers of the Postal Telegraph might possess perforating machines of their own and hand in the perforated strips instead of written messages, thus securing their immediate despatch.

ingly, and thus trade and civilization furthered indirectly to a very great extent. There are many more advantages; messages will not be mutilated; they will not be belated; they may be sent simultaneously, inexpensively, and without further preparations, to any number of stations and directions; they can be sent secretly by being handed in on perforated slips of paper, and delivered at their destination in an undeveloped state.

A German expert declares its latest improvements, by which it has reached perfection, to be "the most remarkable progress in telegraphy since the invention of Hughes's synchronous printer," and adds that Messrs. Pollak and Virág "are sure of foremost places in the history of telegraphy." No doubt they are, and it is much to be regretted that one of them, Herr Virág, died a few months ago, without having enjoyed the fruits of his ingenious invention.

SOME RESULTS OF FOOD EXPERIMENTS

A recently published memoir of the National Academy of Sciences, entitled "An experimental inquiry regarding the nutritive value of alcohol," by Profs. W. O. Atwater, and F. G. Benedict, and published at the Government Printing Office in Washington, gives a detailed report of experiments under Prof. Atwater's direction for the last few years.

The experiments were made with men, by use of the Atwater-Rosa respiration calorimeter, in the chemical laboratory of Wesleyan University. They were undertaken in behalf of the Committee of Fifty, for the Investigation of the Liquor Problem, Prof. Atwater being a member of the sub-committee on the physiological aspects, and together they form probably the most thorough investigation of the sort ever made.

The general plan of the experiments consists in finding a diet of ordinary food materials, such as meat, potatoes, bread, milk, etc., sufficient more or less nearly to meet the demands of the man's body, when he is at rest or when he is engaged in muscular work. Arrangements are made by which all of the food and drink supplied to the body, and likewise all the excretory products given off from the body, are measured and analyzed and their potential or latent energy determined. Even the air before and after it is breathed is analyzed. The energy which is transformed by the body and given off in the forms of heat and external muscular work is also measured. By striking the balance of income and outgo of both matter and energy, it is possible to learn with great accuracy just how the body utilizes the different materials supplied it in food and drink.

In some of the experiments a certain amount of sugar, starch and fat, which the body uses for fuel, was taken out, and an amount of alcohol which contained the same or nearly the same quantity of potential energy was substituted. The amount actually used was two and one-half ounces of absolute alcohol a day, about as much as would be contained in three or four glasses of whiskey or a bottle of claret or Rhine wine. In the experiments in which the man did no muscular work, the alcohol furnished about one-fifth of the total energy of the food, but in those with hard muscular work, more food was given, so that the alcohol supplied about one-seventh or one-eighth of the total energy.

The results showed that: (1) extremely little of the alcohol was given off unconsumed in the breath and otherwise; the alcohol was oxidized (*i. e.*, burned) in the body as completely as bread, meat and other ordinary foods. (2) In the oxidization, all of the potential energy of the alcohol burned was transformed into heat or heat and muscular energy; in other words, the body transformed the energy of the alcohol just as it did that of sugar, starch or fat. (3) The alcohol did not materially increase the elimination of heat from the body. (4) The alcohol served as a source of heat for keeping the body warm. (5) The energy of the alcohol which made a part of the ration for muscular work was used just about as economically as the energy of the fats and carbohydrates which it replaced. (6) The alcohol protected body material from consumption as did the sugar, starch and fat. So far as its store of fat is concerned, the body held its own with the alcohol rations as with the corresponding rations made up wholly of ordinary food.

The experiments have shown therefore, that when the alcohol was used with other food materials in the diet of healthy men, it has performed one of the two chief functions of food, that is, it served the body as fuel. Alcohol contains no nitrogen, and hence cannot serve the other chief use of food, namely, the building and repair of body tissue.

The final conclusion in this purely scientific memoir insists that the usefulness or harmfulness of alcohol as an article of diet, its influence upon the nervous system and its general effect upon health and welfare are not tested by these experiments.

In other places, Professor Atwater has been at much pains to insist that neither these experiments nor the results of other observations nor general experience warrant the conclusion that alcohol is to be recommended for general use. He considers that it is often extremely useful in certain forms of disease and for aged people, but he adds "for people in health and especially young people, it is an excellent thing to let alone."

BRET HARTE

Died May 6th

THE WORLD'S WORK

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The March of Events

THE gravest public scandal of the larger era of American life lies at the doors of the ultra-protectionists. The President of the United States, Governor-General Wood of Cuba, President Palma and every competent student of Cuban affairs have declared that a greater reduction than twenty per cent. of the Dingley duties on Cuban imports into the United States is necessary to save the island from practical starvation. The moral sense of the people of the United States has asserted itself as strongly as possible and declared that in common humanity and common fairness it is our bounden duty to come to the economic relief of the island. Yet up to the very day set for the inauguration of the President of the new Republic nothing has been done.

A strange and humiliating spectacle is this —the United States magnanimously went to war to free the long-oppressed Cubans; and the whole history of nations contains no more generous action than this. We sincerely disclaimed any purpose of making profit for ourselves. The war ended, we cleaned the island and set it in good sanitary order. One of the great pest-holes of the world was turned into a wholesome city. A system of popular education was laid out. We kept our pledge with all promptness to give over the island to the government of the people under our protection against foreign entanglements. All this was properly and well done; but, when the final act came and the situation that we had ourselves produced demanded a tariff concession on Cuban products—a concession that will work no harm to the American public—the moral purpose of the nation is balked by a handful of protected sugar-makers. The situation is as ridiculous as it is humiliating. Big tasks are easy for a great nation. It is the little tasks that are hard, especially when these smaller tasks must be done by the legislative branch of the Government.

But delay will not hinder the final doing of our duty. It may be done even before this paragraph reaches the reader, or it may not be done till an extra session of Congress causes the insistent pressure of public opinion to be concentrated on this single subject.

THE LESSON OF THE PHILIPPINE MILITARY SCANDAL

WHEN we first undertook the long and grave task of bringing the Philippine Islands up to responsible civilization, the

Photographed by Homeier and Clark

ANDREW JACKSON MONTAGUE

The "Educational Governor" of Virginia

most serious danger that thoughtful men foresaw was not the resistance of warlike tribes, nor the misconduct of American soliders; but the gravest danger seemed to be that the American public might forget the whole problem as we forgot the Indian problem, for instance, for many years. Our success with the Philippines will depend, as our success with every other problem of government depends, on the continuance of an alert public opinion in the United States. The most interesting result, therefore, of the Congressional investigation that has been going on is the proof it has given of the alertness of public interest in the whole subject and especially the public indignation at even the slightest misconduct of any of our soldiers. It is not yet clear to what extent the accusations of inhuman treatment of Filipinos are true; but there is no doubt that there has been inhuman treatment; and the whole country feels shocked and humiliated that there should have been any misconduct.

Now the most significant thing about this whole investigation and what it is revealing is not that natives have been tortured; for greater crimes (if not of the same kind) have been committed by soldiers in almost every war in history. "War is hell," said General Sherman, and it makes men hellish—especially when it is waged against cruel and treacherous bands of men on the other side of the world and by small detachments of soldiers who are removed from the restraints not only of civilization but of the military discipline of the main army. But the happy fact is that the whole public takes time to assert its resentment. A generation ago, during the Reconstruction era in the South, our own citizens were murdered and plundered in a time of nominal peace, without arousing as general an indignation; and Negroes in more recent times have been inhumanly murdered in the South (with greater barbarism in fact than any Filipinos have been tortured or killed) without provoking such national indignation. True, there is a difference between crimes by soldiers of our army and by other persons, for the whole Government must be responsible for one as it is not for the other. Yet the spontaneous and general feeling that has been aroused by the misconduct of our soldiers in the antipodes shows that American public opinion is healthfully alert regarding our proper conduct of this great task.

These military misdeeds are matters of military discipline, and there is every reason to expect that guilty soldiers will be sternly dealt with. They touch our national character and honor as represented by our army. But they do not in any way touch our general policy nor do they seriously affect the larger problem. Regrettable and reprehensible as they are, they are (unfortunately) of a piece with the conduct of soldiers of other armies who have done similar service in remote parts of the world. But the acute interest that the whole public takes in the subject is both surprising and gratifying; for it shows that we are not likely to fail in the Philippine task because of popular indifference at home.

A NEW FORCE FOR PEACE

IN considering the whole subject of war in the future, this popular sensitiveness to cruelty must be reckoned with as a powerful force. It may almost be called a new force, so greatly has the humanitarian feeling grown within the last few decades. Both the Boer War and our war in the Philippines have revealed a stronger and keener humanitarianism than public opinion ever before showed perhaps in the whole history of mankind. Hitherto men have accepted war as a necessary barbarity, and inhuman acts have been considered as inevitable. They have been regretted and discouraged; but never before have they lain so heavily on the public conscience. Such prison experiences as were common during the war between the States would now so arouse the indignation of mankind that no nation could withstand it. General plunder and murder are no longer possible.

There is of course a squeamishness in civilian comment on suffering, whether it be necessary or unnecessary, that the soldier does not feel or does not permit himself to feel; and a humanitarian standard of conduct is easily set in times of peace that is not found practicable when war comes and the horrors of the field and the camp blunt men's feelings. The punishment of a treacherous and cruel Filipino by the "water cure" does not seem to soldiers in a Philippine jungle such a crime against civilization as it would seem to the same men if they were engaged in peaceful

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DIRECTORS OF THE SOUTHERN EDUCATION BOARD

Photographed by Mrs. Gertrude Kasebier

CHARLES R. SKINNER
State Superintendent of Public Education in New York

pursuits at home. The truth is it is not a worse atrocity than every war has provoked. But in no preceding war has the light of humanitarianism beat so strongly on every act of cruelty. This ferocity of public indignation is a happy measure of the great advance of civilization that has been made since wars were more frequent. It is a force for peace that monarchs and ministries and soldiers must hereafter more seriously reckon with than they have reckoned with it hitherto. It is become a great peace-keeping force and deserves to be ranked with commerce and industry as a deterrent of war.

AMERICAN CONTROL OF SEA TRAFFIC

ENGLAND (for the English industrial imagination seems to work fitfully after the manner of English humor) has been stirred by the prospect of the "Morganization" of the shipping of all the world. It was long ago taken for granted on this side the ocean that the great transcontinental American railroad consolidations would either own or control or work in harmony with the ocean steamship traffic—in other words that the great masters of American transportation would not stop at the Atlantic's edge. The momentum given to the consolidation of transportation was sure to bring this international result.

To what extent the owners or those in control of the great American railway systems have secured control of trans-Atlantic steamship lines the public does not yet definitely know. But there can be no doubt that the trans-American railways and some of the trans-Atlantic steamships are now directed by the same group of men.

The alarming fact for England is that part of the British merchant marine has thus passed practically under American control. The practical effects, so far as international relations are concerned, are in the somewhat distant future; for the immediate effects will be confined to shipping rates and such purely practical results. The first important fact that is apparent is that the mines and the iron and the steel products of the United States, the railways whereby they are hauled to the seaboard and the ships whereby they are sent abroad are all under one control by community-of-interest.

It is too soon to talk of the effects on England's prestige as the owner of the world's sea traffic; and it is somewhat premature to speculate on the probability of the complete girdling of the earth by these same great masters of transportation. But this result may conceivably follow.

The trans-Atlantic shipping is yet more largely in the hands of the great German companies than in the hands of any other single combination of ship-lines.

But the recent facts about the ocean "merger" that have been given out and the still larger number of conjectures do stir the imagination at the world-girdling tendency of American combinations. In the fulness of time the control of the seas must come, though it has hardly yet come, to the nation that controls the iron products and the cotton products and the food products of the greater part of the world.

THE STEAMSHIP DEAL AS A PLAY ON THE STAGE OF THE WORLD

WHILE the intense English excitement about the steamship "merger" is not shared here, the event is of sufficient importance to stir the imagination of economists more mightily than the usual chapter in consolidation. The difference is, the American imagination was stirred before the event, the English afterwards, and Mr. Carnegie's both before and after; for he has been moved again to predict the far-off event to which his strong fancy runs—that England must ultimately become a part of the American Union!

The mood of surprise and excitement is hardly the best mood to regard such a chapter in the unification of traffic control, but rather the mood of serious study of economic forces. That Americans will some day control traffic on the seas seems certain; but a combination of a number of trans-Atlantic steamship lines is only one step (and not the most important in spite of its dramatic quality) towards such a consummation. The insurance of cargoes is yet done in London; and this is of the first importance. Lloyds is a more important institution than any steamship line. Nor can these ships (under our present law) be admitted to American registry. In other words, it is a long way yet to American supremacy on the sea.

But one incidental yet important result of the merger will be the defeat of the ship-

subsidy bill. Never mind the arguments for or against it. When American capital does as dramatic a thing as this, the American people feel their imagination stirred; and our politics is a matter of imagination and seldom a matter of argument. Dull is the man who does not see so plain a truth. Mr. Morgan has killed the ship-subsidy bill by making it seem a mendicant measure—whether he meant to do so or not. As we sit and look at the play the hero is the man who does, not the man who asks for help.

WHY A LESSENED MEAT PRODUCTION?

PUBLICITY is demanded about the whole subject of the supply of meat. The crops of cotton, corn, and oats have steadily increased during the last twenty years, but the production of cattle has fallen off. In 1900, for example, it was five per cent. less than it was in 1884; and the production of hogs was ten per cent. less than it was in 1882—this in spite of the increased population and the demands of the export trade. Why this lessened production? And what, if anything, has the so-called "beef trust" to do with it?

The following table is interesting:

	1882	1899
Total number of hogs	44,000,000	38,000,000
Hogs used by Western packers	9,000,000	22,000,000

This shows the growth of the packing industry in spite of the decrease of production. While there is no necessary inference that one has had anything to do with the other, the question is inevitably raised whether the consolidation of the packing business has caused lower prices to be paid to the farmers.

The most interesting question in fact raised by the whole discussion of the increased price of meat is whether, along with the enormous benefits that the great packing houses have conferred on mankind, they have discouraged the production of a normal supply. The improvements made by the packers in killing and saving and shipping hogs and cattle and by the utilization of by-products of the slaughter-house, deserve to be reckoned among the most important practical benefits of modern organization; and the result that ought to follow under normal conditions is cheaper and not dearer meat. Any combination that increases the cost to the consumer is at once put on the defensive.

AN IOWA SPOILSMAN IN A NEW YORK OFFICE

THE appointment of Mr. James S. Clarkson, lately (and yet in the public mind) of Iowa, as surveyor of customs at the port of New York is the most flagrant example of several recent appointments by the President of the party prevailing over the man. Mr. Theodore Roosevelt has no natural kinship in political method with Mr. James S. Clarkson, as their clash of eleven years ago proved. Mr. Clarkson stands for the machine and the guillotine. Mr. Roosevelt stands for the merit system of appointment.

Yet it is very much easier to conduct the government from the rooms of a civil-service reform club or from an editorial office than from the White House where the pressure of party politics is so strong that no man who has not felt it can conceive of its strength; and no man has ever wholly resisted it. The President will be accused of building up a machine whatever he does—a Roosevelt machine if he appoint only men who stand resolutely for his own methods, a party machine if he appoint only such men as the old party leaders prefer. He does not wish, and it would not perhaps be wise, to break with the party if the peace can be kept at the cost even of some unfit appointments; for ours is a government by parties and government by parties carries with it the disadvantages of frequent compromises. So much may be said in apology. But unluckily it must be said as apology. For surely an acceptable partisan could have been found who would not have aroused the decided objections that have been made to Mr. Clarkson. Nor is this the only reason for criticism.

Quite as serious an objection as Mr. Clarkson's identification with spoils politics is his real lack of identification with New York City. He has for some time had his residence there, but he has in no important way been identified with the city or its activities. He is essentially a non-resident.

If one swallow does not make the summer, neither does one raven make midnight nor, fortunately, a dozen ravens; but the more appointments that have to be apologized for the worse it is for the President. Mr. Roosevelt outside the White House would have criticized any man inside the White House who should have appointed an Iowa spoilsman to a New York office.

THE INDUSTRIAL GROWTH OF MASSACHUSETTS

THE economic value of good training and of a clean political life was never better proved than by the census bulletin on manufactures in Massachusetts. Massachusetts is not a State of many or great natural resources. The skill of the community is its resource. In the manufacture of boots and shoes, rubber goods, cotton and woollen goods, worsteds and fine grades of paper Massachusetts leads the Union; and its total output of a billion dollars' worth of manufactures in the single year, 1900, shows the State to be in reality a humming workshop of prosperous industrialism.

The closing some years ago of the Norway Steel and Iron Works at Boston was thought at the time to foreshadow the death of the Massachusetts steel and iron industry, yet from 1890 to 1900 the product increased one-fifth. It has been for some time supposed that the growth of textile mills in the South, built partly by Massachusetts capital, was undermining the Bay State's cotton manufacturing industry, but for 1900 Massachusetts surpassed Pennsylvania, her nearest rival, by nearly sixty million dollars in value of output, and added to her equipment two million spindles, over forty per cent. of the whole country's increase, while the other New England States were left behind by the new manufacturing regions in the South. In brief, in one decade the army of factory wage-earners increased 50,000, aggregate wages twenty-three million dollars, and manufacturing capital nearly two hundred million dollars. Despite its stringent laws, no State exhibits in its manufacturing industries a healthier development.

Education, too, may be called a Massachusetts industry, for the State is a great academic grove provided with libraries and lecture-rooms and book-shops for the training of the young. The deserting of farms and of outlived whale-ships is a slight loss in comparison with the constant growth of educational work, for which the whole Union is under increasing obligations.

THE DEATH OF MANY NOTABLE MEN

IT is a very happy observation of a writer for the New York *Sun* that Bret Harte had the happiness to live to see his work regarded as classic; for there is no room for difference of opinion concerning the originality of his contribution to literature. "The Luck of Roaring Camp" was immediately recognized as a fresh and new piece of work and it opened the way to his literary fortune. The many literary sensations that we have since felt have naturally somewhat dimmed the recollection of the excitement that was caused by his sudden bound into universal attention. But the noteworthy fact is that he came into public appreciation to stay. His later books have seemed to many readers too much like the second working of the rich vein that he discovered; but the richness of the vein has never been gainsaid. There has been no more original story-teller in American literature nor (to those who have a taste for rough and robust life at first-hand) a more delightful one. He lived to finish his work and he earned the gratitude of all English-reading mankind and of many men of other tongues also. If every phase of American experience had had its interpreter as he was the interpreter of the life of early California what a literature we should have! It may be said that no man knows American life or American literature who has not reread at least his early tales and poems. And he did a service to our literature that is in one way even greater than the addition to it of volumes of fresh delight, for he taught us that literature is a thing made directly out of human life and not out of books. How much our later writers of the best sort owe to this lesson nobody knows, but the debt is an incalculable one.

Other men have lately died whose lives and work made a deep impression on their time—Frank R. Stockton, a story-teller of another kind who made life more cheerful by a gentle humor that was his and his only; Paul Leicester Ford, whose versatile and successful career was cut short by a horrible tragedy; Rear-Admiral Sampson who will take a secure place, and a larger place as time goes on, in our naval and patriotic history; General Wade Hampton, a brave soldier and almost the last large example of the ante-bellum Southern gentleman; J. Sterling Morton, of Nebraska, Secretary of Agriculture during the last Cleveland administration, and an uncompromising and somewhat impractical democrat but a prairie philosopher of large

and generous nature who had a genius for personal friendship; Archbishop Corrigan, of New York, a most successful administrator and a man of a most devout and beautiful life, under whose skilful leadership the Roman Catholic Church in the most important diocese in the Union kept pace with our growing life and bent to the great forces in a democracy without breaking its ancient creed or policy; and Amos J. Cummings, long a newspaper writer of great directness of style and during recent years a Congressman from New York City. All these were men far out of the common, each in his own way; and the country is the poorer for the loss of them.

THE SOUTHERN EDUCATIONAL CONFERENCE

THE annual Southern Educational Conference has come to be a force of national importance. It was held this year at Athens, Ga., and there were in attendance a larger number of men and women of influence from nearly all the Southern States than ever before met for an educational purpose. They included not only the presidents of colleges and the superintendents of schools and men who are directly engaged in educational work, but Governors of States, and other men prominent and influential in public life. There went to the conference also a group of men and women from the North-Atlantic States, some of whom represented Harvard and Yale and Columbia and other universities, and others were men of affairs who have taken a deep interest in the subject on which the conference this year laid emphasis—the building up of the rural public schools.

It is doubtful whether so earnest a movement for any similar purpose has ever been known in American history. Southern communities are so waking up to the necessity of training the neglected rural population that in North Carolina, for example, meetings are held in the principal towns to lay plans and to secure money by private subscription to equip the public schools in the adjacent country. Good school-houses are to be built, handicrafts are to be taught, school-gardens cultivated—the enthusiasm is unbounded for schools that shall train the children in accordance with the economic needs of the people. Several such rural schools that have already been established in Georgia are working a revolution in the communities where they are. The movement is a movement also for the consolidation of rural schools, making fewer of them and making them better, and for the increase of local taxation for school-purposes.

The force and earnestness of the new crusade are indicated by the liberality with which some of the towns and cities, by the private subscriptions of citizens, are spending money for the betterment of rural schools; by the fact that the foremost men and women of these awakened communities go long distances to attend these meetings; by the energy with which the women's clubs (in Georgia for example) contribute money; and by the energetic interest that even the Governors of some of these States show in the matter. Governor Aycock of North Carolina for example, attended the conference at Athens, Ga., and he goes about his own State making stirring public addresses for the better free education of all the people without regard to sex or color or creed. Governor Montague, of Virginia, shows a similar zeal.

These youthful Governors of these two old Commonwealths, whose sturdy rural population is an economic resource of greater value than all their fields and mines and forests and industries, have won by their earnest interest in the development of the people the title of "educational governors;" and their great popularity is a fair measure of the earnestness of the people in their purpose to become an integral part of the best-trained population in the world.

THE NATIONAL SERVICE DONE BY MR. ROBERT C. OGDEN

FOR this annual Southern Educational Conference as an institution the gratitude of the whole country is due chiefly to Mr. Robert C. Ogden, of New York; for, while the conference is the meeting-place chiefly of Southern leaders, it is under Mr. Ogden's wise and generous presidency that it has been developed into a national force. He has brought to the meeting every year a company of Northern men and women who have thus studied Southern conditions at first-hand and who have formed permanent and warm friendships with Southern workers in the same field. A mutual broadening of

view and aim has followed these intimacies; and the forces that make for popular education in each great section of the Union are, as a result, more nearly a unit in understanding and in purpose than similar forces that work towards any other end. As president of the Southern Education Board, which is the controlling body of these conferences and is a permanent organization, he has made a compact working-force of a group of Southern educators and of Northern men-of-affairs. It is an organization that as a voluntary and energetic force purely for patriotic work has but one parallel in our recent history, and that is the Monetary Commission which did such good service for sound currency under the leadership of Mr. Hugh H. Hanna, of Indianapolis, who, by the way, is characteristically a member of this Southern Education Board.

BROADENING THE PUBLIC SCHOOL IDEA

A PEDAGOGICAL result of great value promises to come out of this popular uprising for the better training of the rural population. The movement is not for country schools of the old kind where only the three R's and other things are taught from books. The demand is that children shall be trained to skilled work with their hands also. A kitchen and a garden and a workshop are considered necessary parts of a school. The foundation is to be laid for technical and industrial training and for the most direct help towards better housewifery and better farming. The public schools, in fact, are to lay hold directly on the everyday life of the people as well as on the intellectual life of the pupils.

It is significant that in the South this movement to broaden the influence of the public school begins just when somewhat similar work is begun in some of the Northwestern States. In the vocabulary of both these sections of the Union "education" is coming to mean "training;" and country boys and girls are taught not by a system of pedagogics that stops with the acquisition of a few facts that are got from books but by a system that lays hold on the whole life of the people. There is promise that the public schools will become a new sort of force in American life everywhere. Their delayed development in the South gives an opportunity greatly to broaden their basis. Pedagogical traditions and long entrenched theories of popular education are not in the way of improvement there. Educational method until very recent years has been the most stubbornly conservative thing in modern life; and the hand of the schoolmen of the Middle Ages is yet visible in much of the work done in our democracy of the twentieth century. That a great movement for the better adaptation, especially of rural schools, to modern needs, should arise in the South and in the Northwest is natural and it is a striking proof of the value of a democracy as a field for all sorts of social experiments and for all kinds of social progress. It would be a striking fact (and it is not at all improbable) if the character of our whole public school system should suffer a change as a result of this Southern movement.

A DEMOCRACY IN TRAINING

MUCH of the space in this number of THE WORLD'S WORK is given to articles and illustrations that set forth educational work and problems, for the simple and sufficient reason that no other subject, at this time of the year in particular, so fills the public mind. The central secret of the efficiency of the individual in a democracy is found in this fact—that the right training of youth is the first thought of the whole responsible part of the population. During this month the celebration of educational work at commencements alone may fairly be called a national function.

The field is so broad that no single number of a magazine nor a dozen numbers of a dozen magazines could even sketch it in outline. But emphasis has purposely been laid on public school work which is the foundation of all. The great system of free public instruction that is carried on, for instance, in and chiefly by the State of New York is such a far-reaching system as was perhaps never undertaken by any other government in the world; and the popular uprising of the people in some of the Southern States for the betterment of the rural schools is as cheerful as it is significant. The decoration of schoolrooms and other such subjects take space in this magazine that might have been given to articles on industry or on literature or on politics or on religion or other subjects that

men wrangle about, but they would be of no greater value and they are far less interesting than these straightforward explanations of work for the better and better training of American youth; for this is work such as was never before done in the world by the voluntary efforts of the people themselves.

A NEW CHIVALRY

DR. E. J. JAMES, the new president of Northwestern University at Evanston, Ill., recently raised the question of the desirability of coeducation in a way that has attracted wide attention; for he expressed the doubts that many men have come to feel. "As a system," said he, "coeducation not only has ceased to make new converts, but there are indications that it is losing ground in the territory which it had won."

The system of educating women at men's colleges seemed a dozen years or more ago to have entrenched itself beyond question in the Middle West. It was predicted then that the annexed women's colleges (such as Barnard at Columbia and Radcliffe at Harvard) would be absorbed in these universities, and that these universities would become fully coeducational, as the University of Michigan is, for example. But the prediction seems less likely to become true now than ever before.

The three types of higher education for women that have been developed in the revolt against the old-time perfunctory school for girls are all likely to survive for an indefinite time—the women's college, the coeducational college, and the "annex." Each has its partisans. But there is a growing feeling that of the three the woman's college, proper, is the most logical.

This feeling is part of a much larger feeling that has been observed by every social student —a decided rebound from the more radical conviction of a decade or two ago that what is good for men is good for women in training, in work, in many ways in fact. The "masculinization" of women has had its day as a sort of "movement." The somewhat silly and pitiful educational and economic relation of men and women fifty years or more ago is never likely to return; but there are signs of a new chivalry, which is born of a mood that recognizes women's strength but that is not especially impressed by women's muscle, either physical or intellectual. Neither the uneducated woman nor the woman educated with men seems as likely to be the woman of the future as the woman that has been trained in a college for women only.

THE SECOND FALL OF ADAM

THREE candidates for a preacher's license who appeared before the New York and the Elizabeth (N. J.) Presbyteries were recently debarred because they regarded the story of Adam and Eve as an allegory. A committee was appointed to "pray with" one of these candidates, as one of the committeemen expressed it "to wrestle with God for him, moderate him, tune him up, and give him a dressing." Two of these candidates are graduates of Yale and of Hartford Seminary; and their position has received the open support of members of several faculties of orthodox theological schools, of a part of the orthodox religious press and clergy and of practically all the reverent and thoughtful secular press. The *Outlook* has designated the examination of these candidates as "theological bullying." On the other hand the conservative and probably the controlling elements of the Presbyterian Church and of some other orthodox sects have either silently or openly approved the temporary refusal of these Presbyteries to grant licenses to these men.

The significant and interesting fact is that the raising of this question has not caused anything like such a controversy as it would have caused even a few years ago. Upon sober second thought the Presbyteries admitted the candidates, who will not be regarded even by the conservative element of their church as fit for strategems and spoils. The *odium theologicum* seems fast to be passing, especially when it is invoked about any subject in the Old Testament. And the lack of interest that laymen of all sects and classes take in such a controversy is the most significant fact of all. They care very little about it, and a serious, not to say angry, discussion is impossible. If the religious public cannot be aroused to the defense of a literal Adam as the father of the human race, it would be difficult to arouse it to the support of any subject in the Old Testament narrative. Yet it has been only thirty years since "The Descent of Man" was published and a still shorter time since modern scholarship

fell seriously to work on the Old Testament by the historical method. After all, the spread of knowledge is very rapid, slow as it often seems to the individual investigator.

THE NEW SABBATH

HOWEVER strong may be the evidence back of the Reverend Dr. Lorimer's recent prophecy that "in fifty years we shall have no Sabbath," there is no doubt that the character of the American Sunday is changing. Boston suffered this spring from one of the violent reactionary applications of the "blue laws" which the old Puritanical spirit of the city makes periodically necessary—a confession of the feeling that the sale of ice cream, soda water, candy, and tobacco on the Lord's Day is a degenerate modern desecration. In New York the arrest of Sunday baseball players and cross-country runners, coupled with a spasmodic effort on a few successive Sundays to close the easily entered saloons, indicated a weak—and, as events proved, futile—attempt to restore an earlier condition of Sabbath hush.

The attitude toward Sunday has undeniably changed. It is the part of wisdom, since the change has been largely from strait-laced religiosity to recreation, to take note of it cheerfully and to discover in the new day a really helpful influence toward social well-being.

THE GREATEST OF ALL NATURAL DISASTERS

THE eruption of Mt. Pelée on the island of Martinique, which overwhelmed the city of St. Pierre on May 8, instantly suffocating and burning the entire population of 30,000 persons, shocked the whole world by its horror and instantly showed the humane quality of modern civilization. Almost every country at once sent succor to the destitute islanders that survived. No other natural violence of nature has within historic times killed so many persons; and they were instantly killed, probably by the deadly gas that the volcano emitted. No such ghastly scene perhaps ever met human eyes as the masses of the dead in that half-buried city.

The larger and violent processes of nature and our imperfect knowledge of the interior of the earth have been emphasized as perhaps they never were before. This string of West Indian islands is, of course, all of volcanic origin. But only two great explosions had occurred since the Western hemisphere was discovered, the last of which was in 1812. Every generation regards its own time as a time when nature has finished its larger work. We no longer carry the fear of the wrath of God, but neither do we think of the great processes of nature as yet in operation. We look upon the earth as having long been finished. We have scientific knowledge, but not yet a scientific consciousness. And, as for our exact knowledge, except what we owe to the astronomers,—what a thin coating of earth and envelope of atmosphere is included in its range!

THE OVERWORKED CRITICS AND THE FLOOD OF BOOKS

IN the jeremiads of the overworked critics, the commercialization of literature has come up lately for much discussion. If for "literature" we read "books" the case is easily made out; for the writing and the publishing of books have become commercial industries—of many books at least. In fact it is probable that the writing and the publishing of some books have always been merely commercial undertakings. But fresh emphasis has been laid on the subject because in recent years the sheer manufacture of popular novels has become a business—a business conducted by men who have neither constructive skill nor style and by publishers who advertise their wares after the manner of makers of soaps and medicines.

Such an industry is as legitimate as the making and the selling of soaps and pills. The mistake made by the critics is in classifying these books with literature. The trade of such publishers is the simple one of buying white paper at six cents a pound and by a dollar and a half 's worth of advertising selling it bound and soiled for about a dollar a pound. Sometimes (but far less often than the public imagines) it is a profitable occupation; for the truth is that almost, if not quite, as much money has been lost in recent years in exploiting some sensational novels as has been made by the sale of others. The business is not as safe as (for example) the manufacture of patent medicines, or as the management of a good circus; and it is more closely akin to these occupations than it is to the production or even to the sale of literature.

For literature? That is another thing; and the production of literature nor even its sale has nothing in common with the manufacture of romances for kitchen and railway consumption.

To the impatient writer and to the critic whose desk is loaded down with new books, the whole world of publishing may seem, for a despondent moment, to have changed; but the despondent mood is not the mood for clear conclusions. The best books are written and are published and are sold and are bought and are read by men and women whose standards have not suffered permanent confusion. They are not many, nor do many of them sell by the half-million, but they endure at least for a season. The writing and the publishing of such books have never been occupations that men have pursued primarily for profit, and there are yet authors and publishers who do their high service to the public because it is a high service and because they like to do it. Let us not lose our standards of judgment or be confused by ephemeral successes.

Just when this paragraph is written any bookseller will tell you that his shelves are so overcrowded with new novels that he can sell few of them; and the best suffer least from such an overproduction. In the meantime authors, publishers, and public are finding time to reflect; and reflection makes it clear that ping-pong now engages those half-million or more of mighty minds which were yesterday engaged in reading historical novels that contained neither history nor romance. But these things bear the same relation to literature that gas logs bear to a hickory fire: they cannot warm the heart.

Nor is there the slightest reason for the critics' despondency. The best contemporary writers and the best contemporary publishers are faring as well as their predecessors fared—are faring better indeed. Although a contemporary judgment of books is the most difficult of all judgments to make, there can be little doubt that during the last decade in the great departments of History and Fiction and perhaps in all other departments of literature except Poetry, there has been a larger volume and a higher average of production than there was during any preceding decade of American life; and there are as many publishers who have not gone into the circus-ring as there ever were. Nor is it to be forgotten that the largest sales of books in recent years have not been of the sensational novels of the month but of whole sets of standard writers.

THE PROBLEMS THAT KING EDWARD WILL FACE AT HIS CORONATION

A LARGE view of British affairs on the eve of the coronation presents the sight of England weathering a very serious storm. Credited with a desire to end the South African War, the King is supposed to have encouraged the Klerksdorp conference and the earnest efforts now being made for peace; and his hope for a complete cessation of hostilities before he is crowned may be fulfilled. But the train of evils following the war are such as no American President would care to face at his inauguration. Already it has cost nearly a billion dollars and the total cost, if the war is ended this year and the Boer farms restocked, will probably amount to nearly half our national debt at the close of the Civil War—say $1,200,000,000. The income tax has risen, above the height it reached when the Crimean War was draining England's resources, to the highest level in English history. The bread-tax proposed by the Chancellor of the Exchequer has already raised the price of bread, and if Mr. Chamberlain's idea of making the tax preferential in favor of the colonies is adopted, it will mean a departure from British free trade. Ireland always in greater or less ferment is in a mild turmoil over the application of coercion. With concrete evidences of the "American Invasion" on every hand and with Parliament exercised over the "Morganization" of English steamship lines, the troubles directly induced by the war bring England face to face with as grave a state of affairs as she has successfully "muddled through" in recent years.

Transvaal and Orange River farmers cannot help to pay the war debt for years to come, and the gold and diamond mines, yielding 130 millions a year before the war, even if they paid a twenty per cent. tax out of their twenty-five per cent. dividends could not pay three per cent. on the total war bill. It will require unprecedented development of South African resources to diminish the debt by a penny. England for a long time

must bear the brunt herself. With consols bearing from two and a half to two and three-quarter per cent. interest selling at seven per cent. discount—compared with United States two per cents. at from nine to ten per cent. premium—the process will be difficult.

The tax of threepence a hundredweight on grain and fivepence a hundredweight on flour and meal, designed to raise twenty-five millions of the 737 millions required by the budget, is one of the revenue methods of far-reaching effect. At first, as has already happened, the English people will have to pay the tax. But the plan ascribed to Mr. Chamberlain is to abandon the traditional free-trade policy and by preferential duties unite the various British colonies with England in trade relations against the world. The effect would doubtless be not only to solidify but also to develop the resources of the Empire, and the development would gradually bring down the price of foodstuffs at home.

Despite the present bad straits of England, then, and the pitiful spectacle of a coronation dinner to 500,000 London "destitute poor"—the King's largess to the proletariat—there is a brilliant gleam of hope in the Empire's tendency toward inter-colonial relations much like our inter-State relations.

THE CONSOLIDATION OF BANKS

[In this place in THE WORLD'S WORK there appears every month an article in which some timely and vital subject of the financial world is taken up]

IN the office of the president of a national bank in New York City which not many months ago reported aggregate deposits of about $162,000,000 is a small picture of the Bank of England. It is the only ornament in the room. It tells the story of this banker's dream—an ambition to establish a financial institution which shall be preëminently influential in the commercial affairs of this country and take rank in the world at large alongside the great British association. The deposits of this bank are already eightfold those of the Bank of the United States at the height of its prosperity. To it are sent deposits from almost every city and town in the country. Its prestige is founded upon successive decades of conservative management, upon alliances with tremendous industrial enterprises and—what is destined, in the belief of the bank's management, to become of greatly increasing importance—consolidations and "community of interest" arrangements with other large and influential financial institutions.

This, in epitome, is a statement of the general evolution of the most energetic American banking of today. The banks which have supplied the sources of the credit, the diplomacy, and the management which have made possible the establishment of the gigantic industrial combinations of the United States, have now themselves felt the quickening spirit of the consolidation movement, and amalgamations of financial interests in the country's money centres are of almost weekly occurrence. Only a few months ago, even the Wall Street community was surprised that the First National Bank of New York should have swallowed up the powerful National Bank of the Republic. The Republic Bank was one of the half-dozen largest in the city, but it was absorbed by the First National in accordance with its far-reaching plan to increase its capital stock from $500,000 to $10,000,000, and to become allied with the great private banking and promoting house of J. P. Morgan & Co. The phrase "swallowed up" which we have used must be understood literally, for when banks consolidate, one or the other of them goes out of existence. They do not retain their names and operate under a single management, as industrial combinations do.

The National City Bank, the National Bank of Commerce, and the First National Bank of New York, now each have a paid-up capital of $10,000,000. The National City expects very soon to increase its capitalization to $25,000,000. Each of them has taken within itself several smaller institutions in

recent years, and, with their enormous deposits and resources, each of them is making marvelous strides in prosperity and strength. Only a few months ago, the National Bank of North America absorbed the Bank of the State of New York with its $6,000,000 of deposits. Some dozen or more smaller institutions in New York City have been brought into the fold of larger banks since the century began, and negotiations are known to be under way for the purchase of several others. The movement of deposits and influence toward the stronger institutions is so irresistible that a well-known financier remarked not long ago, that within five years not a single banking house with less than $5,000,000 deposits would be able to do business south of Fourteenth Street.

This consolidating movement has made itself felt very strongly in other financial centres. It must be borne in mind that the movement is confined to the leading money markets of the country. The First National Bank of Chicago is planning consolidation with a smaller institution, the combined deposits of the two now aggregating $100,000,000. This will make the largest bank in the country outside of New York. Boston has felt the force of the unifying impetus in a number of cases. The National Shawmut Bank has figured in several amalgamations. The Boston banks still exercise an almost controlling influence over the finances of certain important industries in this country — notably wool and copper—and they are strengthening their lines to accommodate the demands created by increased capitalizations and enlarged activities. Boston is the most distinctively provincial clearing house in the country. Her banks clear checks for New England with such exclusiveness that she manages to maintain a clearing house system almost entirely her own, and unique among all cities. With the growth of these interior banks, the demands upon Boston banks increase and far-sighted preparations for meeting those demands are being made.

Philadelphia, likewise, with St. Louis, Cincinnati and Baltimore—all are feeling the force of this movement. Trust companies, too, have joined in the march. The city of St. Louis—a perfect nest of trust companies—announces that three of her most important concerns will soon unite their forces under a capitalization of $10,000,000. A home office will be established in St. Louis, and there will be an affiliated house in New York—a new idea in the trust company business. In the City of New York, the State Trust Company, backed by William C. Whitney and the Metropolitan Street Railway interests, not long ago consolidated with the Morton Trust Company. The great trust companies of the nation, with their charters, which are more flexible than bank charters, are mobilizing their resources with a view to participating in the tremendous international business they believe to be immediately in prospect for the United States.

It must be clearly understood that the movement toward consolidation in banking is essentially different from that in manufacturing. Two radically different problems are to be met. Industries and railroads consolidate to decrease the expenses of operation, to obliterate wasteful competition, and to add to the general profit by utilizing by-products and more economically distributing labor. But decreased expenses of operating a bank are not likely to add much to the dividends of stockholders. Now and then two institutions may come together to save the salaries of two sets of officers and the rents upon two plants. But the weak institutions, or, more strictly speaking, the small banks, which might profit most by combinations for just such purposes, are usually most loath to surrender their independent existence. Very salutary criminal laws prevent bankers from indulging in such wasteful competition as often reduces the manufacturer to the use of the tactics of the cut-throat. The influence of clearing-houses has still further removed strenuous competition from banks, in the sense in which the word is generally understood. To stamp out competition, then, is not the purpose of bank consolidation. The small economies resulting from division of labor and utilization of by-products in large factories do not apply to banks or financial institutions.

What, then, is the cause of these consolidations? First and foremost, it is the ambition of certain institutions and interests to range themselves in position to supply the tremendous sums of money necessary for the establishment of the giant railroad and in-

dustrial combinations now proceeding on every hand and which promise to become even more important and extensive. Here is a field for profit which it is impossible for the mind to grasp. One illustration will bring out the point. When the United States Steel Corporation was in process of forming, it was believed that about $200,000,000 in cash would be needed to finance the project in its initial stages. The managers of the underwriting syndicate were forced to solicit subscriptions from a number of banks and trust companies to secure the necessary pledges. As it happened, only $25,000,000 in cash was called for from the subscribers. The members of the syndicate received that $25,000,000 back after a short time and it is authoritatively stated in Wall Street that before the syndicate dissolves, its members will have received a total of some $40,000,000 in dividends. Suppose one single institution had been large enough and influential enough to finance the whole deal!

New York bankers of large ideas realize, also, that nothing succeeds like success. One of their chief sources of revenue comes from the deposits of country banks. It is safe to say, in fact, that in recent years the principal competition of New York and Chicago banks has been to secure the accounts of these small interior institutions. The deposits of a certain New York bank have increased in three years from $13,000,000 to $50,000,000, and almost that entire increase has been added by country banks. The establishment of "central reserve cities" has made it possible for interior banks to send their surplus capital to the chief money markets where it may be loaned. But those same country bankers are very cautious men, and they are much impressed by a heavy line of deposits, great capital, and general evidences of power. Hence, the spectacular effect of tremendous banking consolidations is a very strong lever in bringing great prosperity.

But absolute combinations meet only a few problems. The limit to such arrangements is very soon reached. Banks which are worth anything are good investments for their stockholders. Their names are a matter of pride to those who control them. To hold stock in the Chemical National Bank of New York, for example, is a certificate of financial standing. These substantial, time-honored institutions in each case have their own clientele, their own prestige, and the price which stockholders would demand for their shares is an absolute prohibition against the bank's going over to the ownership of a rival institution. It is obviously impossible, likewise, that two or more banks in different cities should combine—another point of divergence from conditions surrounding industrial consolidations. We find, therefore, that absolute banking combinations are confined to the money-centres, that they are limited to amalgamations of local institutions, that human jealousies, pride of management and history, and general satisfaction with existing arrangements make such consolidations most difficult to effect, and that a hard and fast limit is very quickly reached.

Other problems of far more serious import confront the banker. The population of this country is increasing with amazing rapidity; the commerce of the people, both domestic and international, is assuming vast proportions; the demands upon credit, upon facilities for supplying the equivalent for money when needed are ever increasing. What does the American banker behold? He sees an independent National Treasury—unique among the nations—hoarding hundreds of millions of money, absorbing the revenues of the country, and with no easy means of making these hoarded millions of value to the business of the country or even of alleviating trouble in periods of financial peril. He is confronted with a national banking system which effectually prevents the mobilization of capital at points where it is often critically needed. He is surrounded with restrictions upon bank note issues which make it hardly profitable for banks to emit circulation at all, and he operates under a Government whose currency is increasing but very slightly in volume year by year—and with no immediate prospect of relief.

Here is a problem which the American banker is meeting as best he may by what is known as the "community of interest" plan. This plan is typified in the present relations between the First National and the Chase National Banks of New York City. Both these were powerful institutions, and neither would consent to surrender its existence by uniting with the other. Yet it was desired to join their resources. The Chase National

had always been regarded as a James J. Hill bank. The First National, therefore, elected Mr. Hill as one of its own directors, and George F. Baker, president of the First National, was made a director of the Chase National. Interests in each bank had personally purchased stock in the other, for banks as such are forbidden to hold shares in other banks. By this device, it was arranged that the great resources of these two institutions should be wielded in complete harmony and for a common end. A somewhat similar arrangement has been made between the Illinois Trust and Savings Bank of Chicago and the Continental Trust Company of New York. These concerns are now owned by the same persons, and, while each is operated independently, the resources of each are at all times available for the use of the other, so that the objects of branch banking are achieved without recourse to that system.

The arrangement between the National City Bank and the Second National in New York is also typical. The Second National is entirely controlled by the same interests which manage the City Bank. Nevertheless the organization of the smaller institution is maintained and, to all appearances, it is operated with independence. In reality, however, this is what happens: the City Bank makes such loans as it deems advisable or as the law may allow. Its powerful influence opens up avenues to profit which it is not in a position to avail itself of and which the Second National very likely would never know about. The Second National is then directed by the management of the City Bank to negotiate a certain loan and take advantage of this opportunity for profit, to the mutual benefit of both institutions. The Second Bank meanwhile conducts its regular business and pushes forward in whatever way it may. The Second National thus becomes in effect a branch of the City Bank, though the technical provisions of the law are obeyed.

It is this community-of-interest scheme which promises to dominate the banking of the country. The habits and prejudices of the people, and especially of the less important bankers, are irrevocably opposed to establishing branches in the National Banking system. If branches could be established, they say, it would mean that in time the small banks of the country would all become branches, and that there would be built up in the United States a few large and dominant banks which would eventually unite in the worst of all combinations—a money trust. But branches may be established for international banking. It is a curious fact, indeed, that there are in this country already a large number of branches of foreign banks, permitted to do business in spite of direct prohibitions against domestic corporations doing the very same thing. It makes no difference what the experience of other countries teaches or what the lessons of disastrous panics in this country promise for the future: the country banker will not surrender his bank, and that means that Congress for a long time to come, at least, will pass no law permitting general branch banking in this nation. State banks may establish branches, but that is a possibility subject to very great limitations. No "money trust" could ever be built up in a State. It would, furthermore, be impossible to build up a successful "holding" or securities company to manage an extensive chain of banks. The "money trust" bugaboo would again loom up to the dismay of any well-laid plans.

It is necessary that some means shall be adopted for mobilizing capital where it is needed and relieving certain localities from accumulations of savings for which they have no immediate use. The banks of New York City, the trust companies and the great life and fire insurance companies have already worked out a plan of harmonious directorates which in times of panic or of peril, it is believed, would instantly crystallize their resources and influences into a working integer for the common preservation. Slowly but surely this harmonizing movement will affect all the banks of the country. It will make possible the easy flow of capital from one point to another. It will make possible a very great expansion of credits in the shape of loans, thus correcting the evil of a scarcity of bank notes. By making prëeminent in control of all banking interests the most conservative and ablest bankers of the country, such confidence will be engendered that a banking currency based upon assets will be authorized. In any event, the continued development of this principle is destined to be of far-reaching importance to the commercial progress of this great nation.

CONFESSIONS OF A CITY SCHOOL SUPERINTENDENT

I AM a superintendent of a city's system of schools and my opportunities for studying and interpreting the various forces at work in a community of diverse sentiments have been of such a character that my innermost thoughts have been kept to myself, or breathed only in an undertone.

My relations with the Board of Education have always been those of mutual confidence and unswerving support. A board composed of business men whose personal duties do not permit them to study closely the various educational movements going on in different parts of the United States, depend in a great measure on the foresight and judgment of the superintendent. This being the case, one of the most difficult things we have had to deal with comes with the importunities of those well-meaning but narrow-minded persons who catch at a floating idea, perhaps from a newspaper article, and come before the board requesting that it be tried in the schools. Occasionally some of the members are caught with the idea and are carried away with it because, perhaps, this particular citizen, club, or organization, has not asked the board for a favor of any kind before. As these matters always come up before the entire board, it is necessary to delay action in order to keep the board from committing itself to a policy, or a precedent, which might become embarrassing in the future.

Another phase of work which demands considerable tact is to "switch off or ditch" certain injurious movements originated by outsiders whose motives are as numerous as the peculiarities of the human mind are diversified. Under this category may be included all that class of persons who want to get on the School Board for special reasons, such as doctors without patients, lawyers without clients, or an ex-schoolmaster out of a job, and who thinks he knows it all; a politician who imagines he sees a soft snap, a merchant, a groceryman, or a druggist, who wants to improve his business by having the teaching force make purchases of him. Perhaps the worst of the lot is the banker in a small city or town whose sole object is to increase his deposits.

Another well-meaning but impracticable class is made up of the few preachers who step aside from their high mission and want to reform and deform many things. They with the doctors make a specialty of picturing to nervous mothers the terrible strain under which children are overtaxed in school, but seldom or never mention the injurious effects of late hours at parties, theatres, and late suppers as affecting the health of children. When a doctor or preacher comes out with a fusillade of this kind, the superintendent can meet such arguments by going into public print and showing up the absurdity of the position advocated by the attacking person. The writer believes most thoroughly in defending a position, if a valid defense can be made, and it is always safer for one to sign his name to what one writes. An open shot is always more manly than a covert attack.

Sometimes a newspaper man takes it into his head that the system of schools, especially the methods of instruction, or the courses of study, are all wrong, and that he should set about righting them, and he gets up "scare head lines" to attract attention. Being the editor of the paper, he is on the inside track, and he can keep up a continual fire of "dry and wet wads indefinitely." As a general thing, however, the newspaper men are fair, much fairer than those who hide behind "Tax-Payer," "Pro Bono Publico," "Citizen," and other masks.

The greatest danger in selecting teachers is the selection of incompetent persons recommended to boards by citizens and outsiders upon personal friendship, rather than upon real merit, for securing positions. Men who wish to be fair and just frequently find it hard to resist the importunities of acquaintances who want a certain person appointed for "old acquaintance sake," or because she

is the daughter of "a veteran," or for some other reason on a like basis. Wherever there is a system of examinations in vogue and the eligible list is closely scrutinized, the dangers arising from an excess of sympathy may be reduced to a minimum. The selection of teachers should always be a divided responsibility between the board and the superintendent.

However well-intentioned a board may be, it is not an easy thing to dismiss a teacher who has been long in the schools. A superintendent may report each year that a certain teacher is weak in both discipline and instruction, and the board may take a spasmodic streak and decide to drop such a one.

Perhaps they do so, and immediately thereafter "the dropped" and all her relatives and friends, near and remote, will call *en masse* and petition that the "aforesaid dropped" be reinstated, and the board very reluctantly relents. This has been one of the hardest questions I have had to deal with, and while I have balanced the interests of the children and my judgment on one side, sometimes my sympathies involuntarily go out to the other. The one safe plan is to watch the door of admission to the teaching force very closely.

There is another question worthy of notice. How much further are Boards of Education influenced by the opinions of high school principals and teachers than by the corresponding opinions of the ward school principals and teachers, when it may be that the judgment of one of the latter is far the saner of the two? It is seldom that the high school teacher or principal comes so closely in contact with the people as the ward school principal, for high school pupils are supposed to behave themselves better than the younger children.

Not all schools in a system of schools can undertake to work out new theories, and it is not wise to have the work in all the schools of a corresponding grade done in the same way. A large majority of the schools that do experimental work should do so cautiously, if at all, sticking closely to the well recognized lines of work, while only a few schools may experiment in different directions without neglecting what is important in any particular branch of study. That educational experiments may be successfully tried, it is necessary at the beginning to select such teachers as have tact and skill enough to initiate and carry forward successfully new lines of work or investigations, and to note carefully the results. A right start is the main thing. Half-hearted work never counts for much. One must put his whole soul into whatever one undertakes to make it tell on the lives of the children or on a corps of teachers. Whatever I have endeavored to do in the way of trying new principles, or in doing old things in new ways, or in the adoption of new methods, I have had the fullest scope to do whatever I thought best under the circumstances.

The rank and file of the teaching force from the highest to the lowest positions are non-progressive and non-studious. Few are close thoughtful students in any line of education or of sound scholarship. This is just as true of a majority of university and college professors as it is of the common and graded school teachers. Such a condition can only be accounted for on the hypothesis that most persons who secure a position as teacher have reached their highest ambition, and are content to spend most of their time in merely holding what they have as the way of living out their monotonous lives with the least annoyance and friction. They are satisfied if they draw their salaries. If they read, it is not the quality of reading that develops mental power or broadens or deepens the sources of knowledge. As much as many do is to read something of a fugitive nature in order to pass away the time or, as they say, "for recreation." Their reading is chiefly mental dissipation. To keep all the teachers of a system in the way of growth, or a continuously increasing state of knowledge, is one of the greatest problems connected with the profession. The dense ignorance displayed by the teaching fraternity on many subjects directly connected with their work is something beyond ordinary comprehension, and can only be paralleled by their disinclination to make even an effort to learn more in any direction of knowledge or culture. Earnest workers are few indeed. Could we have five hundred thousand progressive, earnest, thinking teachers in our schools now, the next generation of men and women would stand on a far higher level intellectually and morally than we do today.

A MODEL SCHOOL

BY

JAMES E. RUSSELL

DEAN OF TEACHERS COLLEGE, COLUMBIA UNIVERSITY

A MODEL school, to be successful, should have the best of everything to start with—the best of buildings, the best of equipment, the best of teachers. All this to diminish the chance of failure and a recompense for mistakes of judgment in administration. Such an undertaking is necessarily expensive, but when the welfare of children and the good of society are at stake the expense may well be afforded.

Every good normal school should have a model school if for no other reason than to show young teachers how to teach. It is little short of a crime to put in charge of a class a person untrained in the simplest arts of teaching. The result must inevitably be experimentation of the crudest and most inexcusable sort. There is enough of the experimental in the teacher's work to make it worth while to eliminate in advance all the dangers which can be foreseen.

The practical school, however necessary it may be, is yet the lowest type of the model school, because it deals primarily with methods of teaching. The next in order is the school for demonstration. Here the problem is to show not only how to teach and manage a class, but also how to organize a school, to house and equip it, to construct courses of study and to direct its activities in a way to make it a standard for imitation or comparison. Within its sphere the Horace Mann School of Teachers College aims to meet these conditions. It is housed in a building which has been carefully planned in conformity with the requirements of sanitary science; its equipment is the best that can be had; ample means are supplied for its maintenance. If it fails of its purpose, it is the fault of those who direct it.

The primary object of the Horace Mann School, as of every school which aims to be a model, is to give the best possible education to its pupils, but in doing this it gives the students of Teachers College and others who follow its work the opportunity to study at first hand school problems as they are daily dealt with by experts. The superintendent of the school, and the principals of the high school, the elementary school and the kindergarten are the executive officers of a miniature school system. They are familiar with the principles and methods of public school administration and are in a position to devise, execute and test reforms which, if found to be practical and effective, may be recommended to others. The heads of the several departments in the College are supervisors of their respective subjects in the school. They are in a position to make an intelligent selection from the vast array of materials available in their respective fields from which the principals and teachers of the school may make up courses of study suited to the ability and needs of the several grades and classes of pupils. These courses are in turn worked over, experimented upon and modified as experience dictates in the class-room. The College students, most of them experienced teachers, observe this work and discuss it systematically with those in charge. Finally the results are published in the *Teachers College Record* in order that others may avoid the failures or profit from the successes which are demonstrated in the work of this school.

There is a still higher type of model school than the school which exists merely for purposes of demonstration. It is the school which aims to realize some new ideas in education—something, of course, that is worth striving for and something which, if attained, will justify the cost of the experiment. Such an experimental school is being conducted by Professor John Dewey at the University of Chicago. Colonel Parker, whose recent death leaves a place in the teaching profession which can never be filled, was so constituted that he never could conduct any other kind of school. And I know of private schools, and public schools too, so dominated by

strong personalities as to be entirely worthy of being classed with those model schools that have something new to offer. But it is from the heart that the mouth speaketh, and my words must relate to the experimental school in which I am most interested—the Speyer School of Teachers College.

The situation which gave rise to the Speyer School is found in the great buildings, so magnificently appointed, that one finds everywhere in our cities—buildings which are used five or six hours a day, five days in the week, forty weeks in the year. Is it a wise economy that permits a plant to lie idle half or two-thirds of the time that it might be used, especially when its use is desired and might be enjoyed by those whom it is intended to serve? The public has a right to use a public building for legitimate purposes and the legitimate purpose of a school-house is presumably the education of the community.

The Speyer School is an effort to answer this question. The building is planned to accommodate a kindergarten and eight elementary grades. It also provides for a gymnasium and baths, a library and children's reading room, rooms for cooking and sewing and manual training, lecture rooms and club rooms—all for the use of the public as well as the children of the school. And in order that the building may be open and under supervision from early morning to late at night every day in the year, ample accommodations are reserved for living rooms for a corps of teachers and officers. Two members of its staff are trained settlement workers. Thus it is intended to do the conventional work of the public school and at the same time to have mothers' classes in cooking and sewing, classes for girls and boys in manual and industrial work, a night school for those who cannot attend the day classes, popular lectures for those who do not wish systematic instruction, boys' clubs and girls' clubs for young people who are looking for wholesome social intercourse—in short, honest educational advantages for all in the community who seek for recreation and self-improvement. Why not? A few years hence this school may be in a position to answer.

On my desk as I write is a letter from Hon. L. D. Harvey, Superintendent of Public Instruction in Wisconsin, asking for teachers for the new county schools of agriculture and domestic economy which have recently been established in that State. He says, "These two schools are the first of the kind in the United States, and are an experiment. They are organized for the purpose of offering a two years' course to pupils who have completed the work of the rural schools. A line of work will be carried on during the whole two years in agriculture, another in manual traning, and a third in academic work in high-school branches that may be taken to fill out the course. For the manual training we shall need some one who can handle work in Sloyd and in such work as will require the use of the ordinary carpenter's tools, some elementary blacksmithing, and some elementary work in architecture, so far as it pertains to the construction of farm buildings. I want men who can organize the work, who have had some experience in teaching and who will take hold of it with enthusiasm and energy. I am satisfied if this experiment is a success that schools of this kind will spring up all through the agricultural sections of the country." Why not? Are farmers beyond the need of training for their work?

Mr. Branson, of Georgia, has recently told in THE WORLD'S WORK the story of the model rural schools which the Federation of Women's Clubs is helping to establish in his State. In speaking of one he said, "The common school subjects will be taught, of course. But cooking, the cultivation of a school garden, a half-dozen forms of remunerative handicrafts, a school library, a mother's club, and a fortnightly institute for the teachers of the county will be some of the features of this school." Yea, verily; why not? Why not include in the work of the school so much of the work of the community as the children can appreciate and employ in their own education. A school, I repeat, is a place in which children should live and move and have their being. It should reflect the larger life without and prepare its pupils for a better life in the future by helping them to live a truer, more normal, life in the present. That which is treated with respect in school, whether it be arithmetic or grammar, cotton picking or hog raising, religion or politics, will rarely be an object of contempt after school. Time and experience will eliminate what is useless or harmful in the curriculum and methods of such experimental schools.

IN THE PUBLIC KINDERGARTEN, NEW YORK CITY

BEAUTIFYING THE PUBLIC SCHOOLS

HOW BARE WALLS AND UNSIGHTLY YARDS HAVE BEEN TRANSFORMED BY PICTURES AND FLOWERS INTO ELEVATING SCHOOL SURROUNDINGS — THE WORK DONE IN DIFFERENT CITIES

BY

BERTHA DAMARIS KNOBE

TODAY the progressive public schools are beautiful inside with inspiring pictures and outside with flower gardens. They are "temples of learning" in comparison with the old-time structure which, with bare and be-smoked rooms and a gravelled yard relieved, perhaps, with a polka-dot arrangement of scraggy bushes, looked more like an austere reform institution.

The movement for the decoration of schools is becoming so widespread as to command attention as an important educational factor. The organized placing of pictures and casts, mostly reproductions of masterpieces, began in the Eastern States about ten years ago, the idea emanating from Ruskin-aroused England, though America has in this particular out-stripped her sister across the sea. Largely through women's clubs the work has extended to every corner of our country and even schools in the rural districts have become aroused. The beautifying by landscape gardening is more recent, but it is a part of the outdoor art movement developing everywhere, and should be stimulated by the example of Europe with its 81,000 schools gardens.

Madame Magloire in "Les Miserables" expostulated with the bishop because he gave one-fourth of the garden to flowers whereas

A HEDGE AND GATEWAY
At an uptown New York School

Photograph by Clatworthy

THE HALL AND STAIRCASE OF THE WASHINGTON SCHOOL, EVANSTON.

it "would be better to grow salads." "Ah, Madame Magloire," he said, "the beautiful is as useful as the useful. I'm not sure but 'tis more so." This is the "excuse" for the beautifying of schools. The "school beautiful" enthusiasts believe that by ennobling

LOOKING INTO A CLASS-ROOM OF THE SAME SCHOOL

Photograph by Clatworthy

the environment of children and cultivating in them a love of painting, sculpture and flowers, they are adding to the higher education an influence not imparted by any textbook. This has been strengthened in several schools by supplementary courses of study; the pupils at Aurora, Illinois, for instance, have instruction on the greatest architecture, sculpture and painting of the world, while the George Putnam school at Roxbury, Massachusetts, has a wild flower collection of one hundred and fifty species, developed with reference to the scientific curriculum.

Think of the city boy who had seen only the Chicago River, and so defined "river" as "water that smells," having daily delight in such a study of nature as Botticelli's "Spring." Think of a country youth, denied the attractions of municipal art, drawing constant inspiration from Donatello's statue of St. George and the best examples of architectural painting.

A WILD FLOWER CORNER
At the Curtis School, Medford, Massachusetts

In beautifying the interiors the entire funds have usually been furnished by an outside society, though an occasional school board has coöperated by replacing the glaring white walls with a soft color, the blackboards with a harmonious hue, and providing appropriate window shades and wood-work. To such a

A CLASS-ROOM IN THE CENTRAL SCHOOL, EVANSTON, ILLINOIS

A HALL IN THE HORACE MANN SCHOOL, BOSTON

background the public school art associations have added large pictures with a patriotic significance, countenancing only the best.

In Boston, the first stronghold of the movement, the Public School Art League and Mr. Ross Turner have been most active. The latter inspired the adornment of the Phillips school, four of whose rooms in distinctive Roman, American, Italian Renaissance and Egyptian effects have been inspected by the leading educators of the world. Among the schools treated by the society are the Horace Mann school with its memorial hall and the Gilbert Stuart school, decorated by Boston artists in appreciation of the painter whose name it bears.

A MAIN ENTRANCE TO THE BROOKLINE, MASSACHUSETTS, HIGH SCHOOL

In New York, still behind other cities, the work has been done by the Public Educational Society. In Chicago, the John B. Drake school has become a model; $1,000 has already been spent in covering the walls with tinted burlap, painting the blackboards a deep green, and hanging the walls and relieving the corners with pictures and busts. The Public School Art Society owns a collection of twenty-nine pictures worth over $500 which is lent to schools in the poorer districts for six months at a time. At the opening exhibition pupils and interested women contribute a special programme. The Forestville school not only has attractive recitation rooms but an artistic office for the principal.

Another school decoration centre is Denver. Instead of a central society, each school has an art association with a prominent clubwoman as patron. The members of the associations, mostly mothers of the school children, hold monthly meetings and give entertainments to secure the necessary funds. In Philadelphia the art activity originated in a

memorial building erected for a beautiful woman, Alice Lippincott, who devoted her life to educational interests. In Pasadena the children of the Garfield school have contributed a penny a month to the decoration fund. In Texas, where there are numerous public school art societies, the high school at Waco has a Greek corridor. At Evanston, Illinois, several schools have not only pictures but flowering plants, like the John Spry school in Chicago, which has, moreover, a fully equipped conservatory for both beautifying and botanical uses. The school at Waukegan, Illinois, was the prize-winner in a national contest for the most artistic interior.

An example of decoration by one interested individual is in Menominee, Wisconsin, where the high school and manual training school

IN THE WILD FLOWER GARDEN
Of the Public School at Roxbury, Mass.

in connection, have been adorned by Mr. J. H. Stout. One large room is set aside as an art museum, moreover, and is filled with pictures and statuary.

For exterior embellishment with gardens, some of the most attractive schools are in Massachusetts. The George Putnam school at Roxbury has continuously taken the first prize offered by the Massachusetts Horticultural Society for the best school garden. The Webster school at Cambridge has been transformed from a bare building into an ivy-covered bower, while its surrounding garden shows what can be accomplished in a small area. At the Curtis school at Medford, where one hundred and fifty varieties of ferns and native plants are under cultivation, all the

GARFIELD SCHOOL
Pasadena, California

garden work except digging is done by the pupils. At Brookline one school building is covered with vines, and the grounds are laid out with bicycle paths and flowering shrubs.

The Garfield school at Pasadena, California, is again conspicuous for its masses of pink ivy-geraniums over the stone wall which supports the sloping lawn, its beds of pink and white geraniums, its clusters of rose bushes and palm trees. In New York, limited space has prevented extensive gardens but an occasional playground is outlined by a hedge of green, or beautified with close clusters of shrubbery. In Denver, (where every tree and spear of grass flourishes only with the greatest care and expense) trees have been planted about the schools and the lawn kept green by club-women.

A MODEL CITY SCHOOL
Showing shrubbery presented by residents of the neighborhood

In Chicago the beautifying work at the Parkside school, a prize-winner in a local contest, was done by the janitor of the building. Every seed and shrub has been bought with his own money and from a dreary expanse of sand he has developed a floral playground. The John Spry school shows the effective use of window boxes over the entrance. At Waukegan, Illinois, where the children sacredly guard the school garden, most of the blossoms are distributed at the hospitals and among the poor.

In two cities, at least, the schools have extended outdoor beautifying to the homes. A society in Cleveland last year sold 121,000 packages of flower seed to school children at one cent a package and the results of their individual gardens were shown in a "flower day" at the schools. At Carthage, Missouri, prizes to the value of $100.00 were given to school children for the best examples of the artistic use of vines and flower gardens.

For the most part school gardens have been cultivated by teachers and pupils, or interested individuals, though the women's clubs, village improvement associations and local branches of the Woman's Auxiliary of the National Park and Out-Door Art Association are beginning to take up the work.

Thus school decoration has extended its influence to the neighborhood. "School beautiful" promoters hope that the public schools of the future will not only have paintings on their walls and flowers in the garden but will be a community centre wherein parents may meet with children and teachers for lectures, concerts and social intercourse. Many a principal declares that the beautifying has already led to a closer relation between the school and its patrons.

THE IVY-GROWN WALLS OF THE WEBSTER SCHOOL, CAMBRIDGE, MASSACHUSETTS

A SAMPLE CROP
Showing the rough soil which nurtured the trees

PEACHES: A NATIONAL PRODUCT

THE EXTRAORDINARY PERSONAL STORY OF THE MAN WHO FIRST PLANTED LARGE PEACH ORCHARDS IN CONNECTICUT AND GEORGIA, AND WHOSE WORK HAS BEEN AN IMPULSE TO PEACH-GROWING THROUGHOUT THE COUNTRY

BY

J. H. HALE

Illustrated from photographs by J. Horace McFarland and others

A LITTLE more than thirty years ago, when New Jersey and the Eastern shore of Maryland, and a few counties of Western Michigan, were the centres of commercial peach culture, a few peaches were grown over a wide range of country for home use, while an occasional surplus found its way to local markets, but it was generally conceded that commercial peach-growing on any extended scale was not possible outside the so-called "peach belts" of Michigan, New Jersey and the Delaware and Maryland peninsula

These peaches were marketed in rough crates, boxes, or baskets, too often with inferior specimens in the middle and at the bottom of the package, and only the best on top. Baltimore, Philadelphia, New York, and Boston in the East, and Chicago in the West were almost the only markets to receive fruits direct from the orchards, and the fruit was distributed to near-by cities and towns only when a large surplus was received. "The peach season" covered a period of a month or six weeks, from about the 10th of August to the 15th of September. Poor as the peaches were, compared with present standards, most of them were sold at good prices, and fortunes were accumulated by orchardists whose methods were but a trifle better than the average. Competition was less spirited in those days.

But all this is changed now. There are no

more "peach belts"; peaches are planted freely in nearly all sections of our great country, except in Maine, Vermont and the Northwestern States beyond the Great Lakes. Georgia, Colorado, California, or Missouri, any one of them, produce more peaches in a single season than the entire peach regions of America did thirty years ago. The "season" extends now from May till November, and Connecticut today is a greater peach producing State than Delaware.

Having had some part in this great development, it may interest and encourage other fruit-growers if I tell my little story, which of necessity must be somewhat personal.

Born and reared on a little Connecticut farm, with a love of fruits inherited from ancestors on both sides, I have among my earliest recollections the seedling peach trees along the fence row. The little Red Rareripe peaches that clustered on these bushy old trees every September were as beautiful as a Crimson Rambler rose of today. One old tree, more sturdy than the rest, and fruiting every year, strongly attracted me, especially after I had learned that it was more than seventy years old. If a tree could fruit like that under such conditions, what might not be hoped for with better varieties and better culture?

My father died in my early boyhood, and mother and children were kept hustling to get a living and keep up the interest on the mortgage. A shovel, a spade, and a little old hand-cart were our only implements. The question of how to start a peach orchard had to give way to the more pressing question of how to get enough to eat from day to day. At twelve years of age I went out to work by the month for a neighboring farmer, and one September day, cutting corn-stalks near the top of a high hill overlooking the beautiful valley of the Connecticut, I came across a seedling peach tree, right there in the corn field, loaded down with ripening fruit; rosy, red little peaches, sweet and delicious.

AN ORCHARD ON THE FAMOUS JOHN BROWN FARM AT HARPER'S FERRY

Tired and exhausted from the heavy work of handling the corn-stalks, I sat a long time under that tree, eating peaches and dreaming of the peach orchard I would have if ever I got money enough to buy the trees; and I believe that the joy in the thought put such life into me that the extra work I did that afternoon more than made up for the time lost under the peach tree.

Continuing to work out by the month on farms, the fall I was fifteen found me with savings of nearly $100 in cash. The winter following was my last at school. I had been reading everything I could get on horticul-

A TYPICAL PEACH BRANCH

A TROLLEY PEACH TRAIN IN CONNECTICUT

ture, and by spring I was ready to invest my cash in fruit trees and plants. As quick returns must be had, the start was made with strawberries and raspberries. Some cash came in the following June, and then the quarter-acre of my beginning was increased to an acre, and later to four or five acres. Keeping in view my peach dream, the first peach orchard of a few hundred trees was now started, and the next year, during the fruiting season, a trip was made to Delaware to study varieties and methods. At that time, so far as I know, there was not a commercial peach orchard north of New York, and the following spring, when I planted out an orchard of 3,000 trees, it was the general opinion that the attempt to grow peaches on a commercial scale as far north as central Connecticut was the crazy scheme of an inexperienced youth, and could only result in failure.

Looking over the situation from time to time and hunting up old fruiting trees in neighboring towns, wherever I could find them, it took but a few years to learn that killing of the fruit buds by the extreme cold of winter was the one great danger to be feared. I found that side-hills and hill-tops had a way of sliding the frost off down into the lowlands; and by tramping around with a thermometer just at daylight some of the coldest winter mornings, I found temperatures varying all the way from 15° to 20°

IRRIGATION IN A YOUNG ORCHARD IN CONNECTICUT

THE HOME OF A GEORGIA PEACH PLUNGER

below zero on the level and in the valleys, while on the hillsides, not over fifty feet above the tube would show from 8° to 12° below, and on the hill-tops of 200 or 300 feet elevation, scarcely a mile away, the mercury would register nearly zero.

Here, then, was the place for peaches, if soil and other conditions were right. By straining to the utmost my slender resources and depending upon the berry fields for ready cash to keep the venture going, I managed to secure and plant nearly 10,000 trees in two blocks. I set about leasing what I thought were suitable lands for further development in the early eighties. One block was on land owned by a widow ninety-four years old, who after signing the lease with her own hand said, "Now, I am going to live long enough to see this peach orchard in fruit. How long will it take?" When she was told that it would be four or five years at least, and possibly longer if the winters were too severe, she smiled, and said, "Well, I will wait to see one crop, anyway!" Six years later, when the first moderate crop came, I took the dear old lady, then 100 years old, in a low and easy carriage, and drove among the trees. She picked the luscious fruit with her own hands from the bending branches, and was as happy over it as a young girl. On the way home she reminded me of her promise to stay till I had one crop, and then with a smile, and a trace of a twinkle in her bright little black eyes, said: "Does this really count for a full crop, or must I live a year or two longer to fulfil my bargain?" I assured her that this should not count, and I had the pleasure of showing her two full crops after that, and

IN THE MAIN PACKING SHED
In Georgia orchards

taking tea with her on her 104th birthday; and it was not until six months later that she left us.

After five years of thorough culture the trees had just come to full fruiting age when three very severe winters in succession killed all the fruit buds. Deeply in debt as I was and faced with the necessity of borrowing more money to maintain the standard of culture I believed in, my friends and well-wishers now advised the abandonment of the enterprise, without sinking any more money in what seemed to them a hopeless endeavor.

Anyhow, they said, the trees would live awhile without culture, and it would be time enough to spend more money on them when they showed some signs of fruiting. But with my hand once to the peach plow I did hate to turn back, and then, thinking how the Lord hates a "quitter," I began hustling to borrow more money. It was a hard struggle, but a record of reasonable industry, coupled with good habits, enabled me to find bankers who were willing to loan money on faith and energy when there was no better collateral in sight.

A year or so later, when I had reason to expect the first paying crop of peaches, a church society, whose members were largely tobacco farmers, asked for further security above the first mortgage they held on all our property, or else the payment of the loan These people could not feel that the church money was safe when an attempt was being made to grow so uncertain a crop as peaches, on what might otherwise be good tobacco land. The church authorities gave us, however, three months to adjust matters to their satisfaction.

BLOOMING TIME
When the plunger lives in his orchard

An offset to this had been a visit to the orchard some few years before by Stephen A. Hubbard, then editor-in-chief of the Hartford *Courant*, Senator Joseph R. Hawley, Charles Dudley Warner, and Charles Hopkins Clark, the present editor of the *Courant*. As

FIELD PACKING AT THE SPRING GAP ORCHARD

lovers of nature, they were at once interested in the new enterprise, expressed great confidence in it, and from that day to this the *Courant* has been an important factor in encouraging this new and important branch of New England agriculture. Both producers and consumers have been greatly benefited by its interest, and many a small farmer in New England owes his first start in the new agriculture to its cheering and helpful words.

In that first crop I was aiming for some peaches better than the markets had ever seen before in any considerable quantity, and I deliberately picked off more than three-fourths of the young fruit, greatly to the disgust of friends who could not understand that I was thus insuring larger and finer fruit.

As the fruit approached ripening, plans for marketing that had been years maturing in my mind were licked into shape. It had cost so much money and waiting to reach this first crop that it seemed necessary to get all possible profit out of it. Determined to be my own salesman, I leased a vacant store in

A PEACH AVENUE ON A GEORGIA FARM

THE TREES LOADED TO THE TWIGS

IN THE PICKING SEASON

the near-by city of Hartford, and a month before peaches were ripe, hung out a large banner announcing that a big lot of "Home-grown peaches, ripened on the tree," would be on sale there after a certain date. Then I visited the leading towns in Connecticut, Massachusetts, and Rhode Island, seeking out in each town one retail grocer or fruit dealer, who handled high-grade goods. To him I told my little story of soil and variety selection, tillage, pruning, fertilizing and fruit thinning. I told him how the fruit was to be gathered fully ripe, day by day as it came to maturity, carefully assorted in three sizes, rejecting all unsound or imperfect specimens, packing the selected fruit in new baskets made of the whitest wood obtainable, every basket to be rounding full of perfect fruit of same grade from top to bottom. I told him there would be a label on every package, giving the grade, and guaranteeing uniformity of packing; that I was jobbing the fruit myself; that prices would probably be twenty-five or fifty per cent. above the market rates, but that the fruit would be worth it; and that I was prepared to give an exclusive agency to the one dealer in each town who would push the goods into the best family trade.

Some took these statements one way and some another but to sum it all up, it amounted to about this: "Young man, you tell a pretty good story; you look honest, and probably mean to do as you say, but we have never seen any peaches packed and handled that way, and we question whether it is possible

A MARYLAND PEACH TREE IN FULL BLOOM

for any farmer to do as you say." A few gave me small orders, and others promised to visit the orchard and salesroom when peaches were ripe.

When the crop began to come in, liberal advertising in the Hartford papers started sales at once. The few outside trial orders gave such satisfaction that orders came pouring in faster than there were peaches to supply them, so that after the first week of the season, the daily orders were far in excess of the supply, and prices were advanced to "what the traffic would bear." It was all cash trade, too!

With a girl to book orders and look after the cash, one boy and I worked in the store every night from six to eleven, taking the fruit from the big wagons as they came from the farm, and making up the out-of-town orders. Up again at four A. M., we supplied the Hartford and local trade, after which came a drive of eight miles out to the farm, there to spend the day assisting at the harvest or toning up the weak places in the plan of picking, assorting and packing. I soon found that men, however honest, would occasionally sneak the best peaches to the top of the baskets, and that women, with quicker eye, defter fingers and natural honesty, made the best graders and packers.

A TEMPTING DISPLAY
At a South Georgia fair

Long days, hard work, and lots of fun there were in that first crop; but the greatest

HALE'S NURSERY BLOCK
A half-mile square of young peach and plum "stocks" on the Georgia plantation

pleasure of it all was signing what then seemed a big check for $2,100, that paid off the mortgage on the farm, and gave the church people a chance to re-lend the money on a Kansas farm 1,500 miles away, where they could not see the borrower daily if he should depart from the orthodox ways of the neighborhood to branch off into the heresy of a new agriculture.

That peach harvest rounded up nearly $10,000 profit, from a farm that my neighbors thought three months before was not good security for a loan of $2,000. All other debts were paid, and the entire surplus waspromptly invested in fertilizers for the orchard. Winter's frost destroyed all hopes of a crop the next season, and money had to be borrowed to keep things going, but only for a little while; for 1889 gave a banner crop of superb fruit, which, marketed as before, gave net profits from thirty-five acres of over $24,000. Such a fruit harvest was a novel sight in New England, and dealers, consumers and landowners from far and near flocked to the orchard by the hundred each day. New England received a stimulus in peach growing, resulting in the planting of over 200,000 trees in the season of 1890. Continued planting since shows at the present time over three million trees in the peach orchards of Connecticut, more than 100,000 in Rhode Island, 300,000 in Massachusetts and not less than 50,000 in the Southern counties of New Hampshire.

My own planting has at least kept pace with the rest, so that now 50,000 trees in Connecticut alone represent the outgrowth of the "crazy" scheme of twenty-five years ago. Rocky hills and semi-abandoned brush pastures have been purchased; woods, rocks and stumps have been cleared away at an expense often exceeding five and even ten times the cost of the land itself; yet the new industry has paid all the bills, and left me a cash reward far greater than my limited education and abilities would probably have commanded in any other business or profession.

The old corn-field is now a part of my farm; peach trees by the thousand cover the hills, and in the peach harvest, when seventy-five to one hundred happy Italians are joyfully singing as they gather the fruit, I do not feel so lonely as I did once on that same old hill!

Since 1896 those who followed me into peach culture have crowded me hard in the markets, and with production steadily increasing and prices declining the net returns per bushel in 1901 were a fraction less than ninety cents, against $3.18 in 1887. But consumers are reaping the benefits, and everybody seems happy.

Having once by personal contact and association established a name and reputation for my peaches among the most critical consumers, I have since 1889 entrusted their distribution to commission men in the various cities. I insisted upon these agents visiting the orchards several times each year, so as to be in full touch and sympathy with all the work of production and preparation for market, and thus be in position to place the fruit intelligently before consumers.

An electric car line from Hartford having been built along our street in 1895, with a siding right at the farm, I determined to get rid of the long wagon haul by night to the city; and by special contract with the railway people three cars were arranged to hold the peach baskets. These cars were loaded through the day and early evening. In the early morning a motor car would haul the loaded cars to the city, where, along the business streets, just before the tracks were required for passenger service, fruit would be unloaded and stacked up in front of the leading stores. My son, who looked after the loading, would also check it out, and see that the empty cars were back on the home siding before a new day's work had begun on the farm. So far as I can learn, this was the first farm in America to make daily use of electric cars in transporting its products direct from the farm to the city markets.

The service has been maintained ever since; fruit travels in better order and at less cost than on wagons. The new style market wagon has always attracted much attention. In the season of 1901 peaches from the Hale orchard at Seymour, Conn., were transported by electricity to Bridgeport, fifteen miles away, and the time is not far distant when electric car lines are to be an important factor in the prompt distribution of perishable farm products all through the thickly settled sections of the country.

In 1890 I was glad to accept the invitation of the Director of the Eleventh Census to make some special investigations of the horticul-

tural interests of America. After traveling more than 50,000 miles and visiting every horticultural section of America my "peach fever" was greatly stimulated, for I had found an ideal peach region in Southwestern Georgia on the line of the Central of Georgia Railroad, not far from the old Andersonville prison ground.

Near Fort Valley, in Houston County, is a broad level plateau, elevated nearly five hundred feet above sea level, with a rich brown sandy loam soil, underlaid by red clay. I found old native peach trees fruiting nearly every year, and the location seemed the most southerly limit of our country where the best strains of peaches can be perfected.

Land was cheap, and good Negro labor abundant. A few planters had made quite a start in orcharding, and I could see that here the large and late peaches of the North could be ripened and got into market ahead of the small and inferior early varieties of the Middle States. About one hundred acres was the limit of my ambition and my bank account, but when I found the best plantation in all that region was for sale at a moderate price, and that its thousand acres would only be sold in one tract, I promptly took an option on it, thinking I could interest people at the North, sell it out in blocks and keep for myself the one hundred or so acres I wanted. But no one had faith in the enterprise, even though I offered the land at cost.

On further thinking the matter over, I could see that a large orchard could be handled much better and cheaper proportionately than a small one; so I borrowed the money, bought the whole tract, and undertook to organize a stock company to equip and run it. Failing at first in this endeavor, I found a horticultural friend in the West, who wanted to try the Southern climate, and who agreed to invest $20,000, take a one-half interest and superintend the enterprise. I went ahead at once and contracted for 125,000 trees and a carload of farm machinery and supplies. Just at this time another peach crop on the Connecticut farm furnished the money to pay for the Southern land, and things seemed to be coming my way when the promised Western partner, unable to realize the expected cash, dropped out of the enterprise. Trees and machinery had been shipped and must be paid for, while to connect them with the farm and keep things going would take much money. I did not want such a vast orchard, but it was too late to turn back; wherefore I explained the situation to my banker, that it was "money or bust!" He agreed to advance the $15,000 necessary to start the enterprise, with a caution not to exceed the amount and call for more.

Taking from the Connecticut farm a few laborers skilled in orchard work, I reached Georgia in early November, 1891, only to find the plantation house burned. It took us three weeks to erect a barn, and with the mules on the ground floor, we made our quarters in the loft, and a jolly winter was spent. A surveyor was employed to locate a central avenue through the place, and the whole was plotted out in blocks 500 x 1,000 feet.

Trees are cultivated more easily if in proper alignment; so after the field was plotted, I set the surveyor running lines for the rows of trees. He had not been working long, when one of the old plantation darkies came, hat in hand, and said: "Cap'n, I dun reckon it cost a right smart o' money to do it dat way. Lulu and I can do it a heap sight quicker, and I reckon about as well as dat ar man wid de machine!" On inquiry, I found Lulu was his old gray mule. I had my doubts, but at his earnest pleading consented that he should make a trial way down on a corner block, where it would not show much. Old Henry cut three long straight poles from the woods; then some tufts of cotton were tied around the tops of the poles to make them white and more easily seen at a distance. The poles were just the length of the distance wanted between the rows; so a standard of measure was always at hand. Placing one pole perfectly upright on the corner of a block, where the first row was to stand, Lulu was headed for the further end of the field, keeping the poles always in sight midway between her long upright ears; so that Henry had a "sight" that made his aim true. I overlooked operations until the third row was finished, and then rushed off to stop the surveyor and turn the whole job over to Lulu! The work was absolutely perfect, and now with more than 250,000 trees in what I am often told is the best arranged orchard in America, I give due credit to the darkey and the mule for the orderly way in which the trees are planted.

The trees to be planted were small, and when the rows were all lined out, instead of following the usual custom of digging a deep hole two or more feet in diameter, placing the trees in position and filling in about the roots with earth, I sheared the roots so close that one thrust of a spade into the mellow cotton land made an opening large enough to receive them and a little tramping set them firmly in place. I planted the first trees with my own hands, and this novel plan of not digging any holes made it the cheapest job of planting on record.

While planting was going on, carpenters were building a house; and the middle of March we were able to move out of the barn.

It would be four years at least before we could hope for any income from the orchard, and necessary expenses could not be less than $10,000 a year; wherefore I set about making side crops to earn a part of this. At the suggestion of a Western nurseryman, between four and five million plum cuttings were put out to grow "stocks" to sell other nurserymen to propagate upon, in place of the "stocks" they were annually importing from France.

Not having been able through the winter to secure a partner or hire an experienced horticulturist as superintendent, I returned North in the spring, leaving a bright young man from the Connecticut farm in charge. I was able to report to the bank that the start had been made with some $3,000 less than the estimated cost.

For a corn crop, against the advice of neighboring planters I broke up deeply with modern steel plows a field of eighty acres that had long been abandoned because so infested with "nut grass" that prevalent methods of culture in the South could not keep ahead of it. The corn-field was planted in check rows, so as to be worked by teams in every direction, and by the aid of the best implements of culture, and "keeping everlastingly at it," a wondrous growth of corn was secured, coming to be a show field, visited daily by planters from far and near.

In the fall we had over 3,500 bushels of corn to sell at seventy-five cents per bushel to the six-cent cotton farmers, who could not quite understand how the thing was done.

The sale of nursery stock in addition swelled the farm income that first year to nearly $8,000.

The winter following a stock company was organized, but only two outsiders could be induced to come in—one a merchant and the other a farmer. By taking my children's savings and those of all near relatives who had any money, enough capital was realized, supplemented with annual sales of nursery stock, to keep up operations for four years, when our first peaches were ready for the harvest. The erection of a huge packing shed for present and future needs, the purchase of more mules and wagons for transportation between packing house and railroad station three miles away, were the local preparations for the harvest.

Then, through commission men who had handled the Connecticut crops and knew my orchard methods, circular letters were sent out by the thousand to retailers and consumers of fancy fruit, telling them that two months ahead of the usual season we were to have large and luscious peaches in abundance. Advertisements in Southern papers brought in educated young men and women from Georgia and adjoining States to assist in the harvest and marketing. The new and fascinating industry had an attraction for these young people, most of whom had never worked for wages before. Hundreds of extra Negroes were also called in, and all camped on the place in their own covered wagons, tents and newly constructed barracks.

Families from Florida who owned small places, in the idle season of midsummer made the trip of three hundred miles in covered wagons, camping along the way. And now as the orchard has increased, there annually come to us from the truck and fruit farms of Florida, fifty to seventy-five people, who count as their only summer outing the two months spent in the Georgia peach harvest. A hotel or lodging house on the place now accommodates a little over two hundred, room and bed being free to those who are willing to conform to the simple rules of decency and good order. Meals are furnished at cost, which is about twelve cents, for an abundance of wholesome food in variety, and yet a majority of white people always prefer to bring their own cooks and provisions from home and rig up a little camp, while others form clubs, buy their provisions from the

commissary on the place, and hire some old Aunty to cook for them at her cabin at twenty-five cents a week for each person and "de chillen take the leavins." Two Negroes board one hundred or more of their own race; others club and cook together about their camp-fire, while many buy from the commissary what they eat from meal to meal. Of the more than seven hundred people on the place in the fruit season, all must be fed on the spot, and as a majority of them arrive without funds, rations must be advanced until pay day comes around.

With the blacks, constant care must be maintained to keep them from eating up their wages before they are earned. The boys and girls resort to all sorts of tricks to get double rations; George Washington Jones, after loading up as heavily as the office will allow, turns up later as "Wellington Smith" and gets another order, while Smith is away in the field at work!

The blacks dislike to work after noon on Saturday, and we have learned to adjust the year's work to this plan. In the fruit season, however, as it is necessary to crowd the work at all times, no one is hired who will not freely agree to work all day Saturday if wanted; and yet on Friday evening or Saturday morning three hundred and fifty out of the four hundred darkies come up with some apparently good excuse to be let off for the afternoon. Sick wives, mothers, fathers, children, brothers and sisters dead or dying, are the usual Saturday morning troubles! Letters and sometimes telegrams are brought in as evidence, and great tact and patience are required to select the one true story from the ninety and nine that have gone astray. I must confess that they are too smart for me, and I would often get fooled if my assistants were not more shrewd in detecting the shams.

One Saturday in July I came upon a boy of fifteen or sixteen crying as though his heart would break. In reply to my inquiry, I was told "Mother is dead, and I want to go home!" Of course I said to him, "Well, go and see the superintendent and he will give you an order on the office." The boy moaned, "I dun see him, and he won't let me off till bell time." This seemed hard, when one boy's work would count for so little among seven hundred; so I took him in the buggy and hurried back to the office, giving an order that he be paid off and let go at once; but I was politely told that "the superintendent's orders are that no one is to be paid till night." After I had insisted in rather strong language that I might possibly be a bigger man than even the superintendent, the lady assistant began a series of sharp questions, finally bringing out the date of "mother's" death as "de 26th ob last Feb'ry!" I sneaked off, realizing that there were some phases of the peach business I had better not meddle with.

Bridal couples, both black and white; ministers, lawyers, editors, artists, doctors; magazine writers, students, school teachers and college professors; bright tramps who have been the world over; young people from the best plantation homes of the South; "Georgia crackers" and blacks of all degrees, make up the forces of the farm in fruit season. The first crop of Georgia peaches was marketed in 1895 so successfully that the orchard was promptly enlarged, until now more than 225,000 peach and 40,000 plum trees can be seen from the outlook on top of the central packing shed, and it is a drive of nearly thirty miles to cover all the avenues in the orchard. A railroad track runs directly to the packing house. An evaporator capable of working up six hundred bushels of peaches a day utilizes any fruit not fit for shipment. Nursery trees by the hundred thousand, corn to feed the darkies and mules on the place, and one hundred and fifty to two hundred acres of fancy canteloupes are the annual productions.

From the Saturday before Christmas to the Monday after New Year's is holiday time, after which the year's work begins. The trees are pruned to make them low headed, so that the fruit may be harvested without use of step-ladders, and the resulting broad open top lets in sunlight and air, to add color and quality to the fruit. Then comes the spraying, for we do all that science and practice can suggest to check the ravages of insects and fungous pests, to the end that every specimen of fruit may be the best and most beautiful of its kind.

Gang plows, revolving harrows and other implements of orchard culture, in connection with the best obtainable fertilizers, keep the more than 2,000 acres of orchard land soft, clean and mellow until the approach of the harvest season, when it is all seeded with

invaluable "cow peas," which shade the ground through the heat of late summer and early fall while at the same time gathering the free nitrogen of the air to enrich the land for future crops.

As soon as danger of spring frosts is over and the fruit is well "set," so that a crop is assured, material for crates and baskets is brought in by carloads in "shooks," and we begin to take on extra help, who are put at work making up crates, pasting labels on both baskets and crates, and storing them away ready for the quickest use in harvest season. "Thinning out" the little green peaches, which helped to the first great success in Connecticut, is carefully practised in the Georgia orchards. Three hundred large perfect peaches from one tree will weigh more pounds, fill more crates and sell for more money than would a thousand or fifteen hundred peaches from the same tree overcrowded, and the quality is far superior.

After the thinning season, crate-making is continued, wagons are fixed, barracks and camps put in order, and everything braced up for the coming rush. A trip is made all through the consuming territory at the North; commission men and leading retailers are told fully and freely of crop prospects, visits are made to general freight agents and officers of the leading railroads, and a personal interest awakened that is beneficial to all concerned.

As soon as the peaches begin to ripen, the most experienced pickers are placed in charge of gangs of ten to fifteen, which are later increased to forty or fifty. Every picker has his number stencilled on a little canvas sack, in which are tickets of corresponding numbers, one of which is dropped in the bottom of each basket. All pickers are taught to recognize a matured peach at sight, and they are only touched by hand when ready to be picked.

Careful inspection of the fruit in each basket as the harvest proceeds tones up the quality of the pickers' work. Wagons with hundreds of extra baskets are always at hand, including two or more boys with each gang to "tote" baskets, so that the harvesters may lose no time looking for "empties." Low-down spring-wagons, drawn by small mules, creep in and out among the trees and haul the fruit to the main avenues, where the baskets are loaded on large floats on their way to the great central packing house.

White labor is used entirely in the packing house, and at two long tables running the full length of the great building stand the men and women who, under careful instruction, take the fruit from the field baskets and assort it into three sizes, placing in canvas trays in front of them. All inferior or over-ripe specimens are set aside for the evaporator. If any baskets show a lack of skill or care in picking, the ticket in the bottom tells where to look for the trouble. Notice is given to the inspector and from him to a field foreman, who gallops away on horseback to brace up the weak brother. The sorters save all the tickets found in the bottoms of baskets, and each is given due credit for tickets turned in.

On the opposite side of the sorting table stand the packers, who take the peaches from the trays and carefully pack the six baskets in each crate solidly full. Each grade requires a particular style of pack to get all the baskets rounding and full every time. Several expert instructors in packing work up and down the line constantly, watching the work, and when a package is complete the packer's number is put on the crate label and on a ticket on top. A helper supplies a new crate and takes the full one to the nailing table, where it passes final inspection, and if not perfect in every way is sent back for re-packing. Every hour through the day the tickets are taken to the office, and a record made of all picking, sorting and packing, so that at all times the superintendent and myself can know just how things are moving, and what each individual is doing.

As soon as covers are nailed on the crates, they are rushed into the refrigerator car waiting alongside, and the five hundred and sixty or more crates that go in a car are so spaced that there is a circulation of cold air about each one at all times in transit. These cars are "iced up" twelve to twenty-four hours before loading begins. The warm fruit starts the ice to melting fast, and in a few hours, when the fruit is cooled, from two to three tons more of ice are required to fill the bunkers. In the fifty hours running time to New York, the cars are re-iced three times, and those going to New England points once again at Jersey City.

Bad weather in harvesting, a neglect to

re-ice a car in transit, arrival at unseasonable hours, bad weather or an over-crowded market on the day of sale—any one of these—may cause the fruit to sell far below actual cost of putting up and delivering, to say nothing of cost of production.

We have loaded as many as thirteen cars in a single day, and ten a day for eight days in succession. There are about thirty peaches to the average basket, six baskets to a crate, five hundred and sixty crates to a car, making for a day producing ten carloads practically 1,000,000 peaches, each of which is handled three times in the operation of picking, sorting and packing; a total of 3,000,000 hand operations each day, besides all the other work incidental to such extended packing.

The packing shed is a cool airy place, comfortable at all times in the hottest weather, yet the days are long and busy, and noting that the workers were tired and languid by night, four years ago I tried a plan of resting them with music. A good string band of six pieces was hired to play each afternoon from two o'clock until dark, or until all work was finished. There was soft, quiet music for an hour or two, and then quick lively airs until the finish—music all the time!

It was a rested, happy crowd that left the shed every night after that, and I felt well repaid for the expense, while in two or three days we noted an increased output of about thirty per cent. in the afternoons—enough to pay for the music and leave a profit besides.

Now, therefore, the music is counted each season as one of the necessities of a profitable business. Among the blacks in the field we aim to have one or more good singers with each picking gang; singing, laughter and shouting is encouraged, for with these everybody is better natured and more work is accomplished with less fatigue.

In the middle of February, 1899, after weeks of warm spring weather and with the orchard in full bloom, the great cold wave that swept all over America caused the temperature to drop in two days from 80° above to 4° below zero. All hands were mourning the loss of the fruit crop, but worse than that, all trees over four years old were found to be so frozen in the trunks that only on one side was there vigorous life, and not enough of this to sustain the entire tops. Telegraphing to Philadelphia and New York for extra saws and pruning shears, in two days I had sixty men cutting off the entire tops from over 100,000 of the older trees, thus giving the almost ruined trunks, an opportunity to strengthen themselves, and later, to grow on only such new heads as their limited sap capacity could sustain. When the beheading was well started and I was around among the various gangs of workers, one of the old original darkies, who as an old-time slave had never quit the plantation, stopped me and said: "Cap'n, dis yer freeze is a heap wuss than jes' losing de fruit crop. If de tops all got to go like dis, 'twill be a good many years afore you dun get fruit ag'in. I was here when you fust planted dem little sticks in de ground, an' every Saturday I dun see dat money comin' out dat office winder. De Lawd knows where you dun get it all, but it dun keep a comin' jes' de same. Now it's gwine ter be a long time afore you gets any more from de fruit, and I's been talkin' to de boys, and we jes' wants you to cut down our pay one-half, and we'll stay right along and work till de trees come bearin' ag'in!"

There were tears in my eyes for I was touched by such loyalty, and I told the old man that wages should never be lowered to such willing workers. Somehow I knew, that those trees were going to live and hustle on some new heads quicker than any trees ever did before.

Very frequent and intensive culture was given these poor wrecks of trees all summer long. Less than five per cent. of them failed to grow, and by fall new strong tops had been grown. The following year the largest and finest fruit I ever marketed came from these resurrected trees!

After the harvest season the temporary help scatter to their homes, or to new fields of labor; the regular hands have a little picnicking and then go to near-by cotton fields to assist in the picking. Before the last of the Georgia peaches are sold, we are fully supplying our markets with the Connecticut-grown fruit and the season that began late in May or early in June on the Georgia farm does not end until near the middle of October. The annual product from both orchards is now more than 100,000 bushels, with promise of being much greater in the near future.

WHY THE PRICE OF BEEF IS HIGH

THE CAUSES OF AN INSUFFICIENT SUPPLY—THE CATTLE INDUSTRY NOT INCREASING WITH THE INCREASE OF POPULATION

BY

G. W. OGDEN

MEAT is high in New York. It is high in Denver. So it is in St. Paul and Galveston and all intermediate points throughout the country.

Why?

The great newspapers say it is because of the Beef Trust. Millions who read the great newspapers and believe all they print accept it without question and frame their curses accordingly. But out in the Middle-West. in a section one thousand miles long and six hundred miles wide,—resembling in form the print of an Indian's moccasin,—where last summer the shriveling breath of drouth and famine streamed up out of the Southwest for three months, the people know better. They know it is the capricious balance of supply and demand, with more hungry stomachs at the demand end than fat steers at the other.

There may be a Beef Trust. It may have been organized for the purpose of making and maintaining unnatural prices. But the present high price of meat is due to conditions entirely beyond human control. A careful and unprejudiced inquiry into conditions in the heart of the beef-producing portion of the United States made this fact plain.

The high price of beef is due to two causes. First, the scarcity of feed in that section which furnishes fat cattle for the market during the winter and spring months and, second, to the increased consumption at home and the ever-growing export trade as opposed to the limited expansion of the live stock industry.

The scarcity of feed in the section indicated is due to the drouth of last summer which cut the corn, hay and cotton crops to less than one-half the regular yield. This drouth, the most severe ever experienced in the large area covered, extended from the Rio Grande in a northeasterly direction and cut a swath six hundred miles wide almost to the Great Lakes. The devastated country included the greater portion of Texas, Oklahoma and Indian Territories, Missouri and Kansas and parts of Arkansas, Illinois, Iowa and Nebraska.

This is the country that has for a score of years been looked to by the packers for fat cattle between the end and the beginning of the grass fattened season, or from October to June. It is the greatest feeding section of the United States and into it during the summer months hundreds of thousands of lean cattle, shipped to the big markets from the ranges of the West, Southwest and Northwest are sent to be put into condition for killing. The big feeders of Kansas, Missouri, Texas and the Indian and Oklahoma Territories, who own millions of acres of corn and cotton lands, buy the thin steers, feed them on the cereal products of this land and in the winter or early spring realize good returns when the animals are sold to the packers at Kansas City, St. Louis or Chicago. For the past four months these cattle should have been coming to the market. Some indeed, have been coming, but fewer than fifty per cent. of the ordinary supply. Consequently beef cattle are scarce.

Between April 18 and July 26, 1901, less than half an inch of rain fell in this immense territory. Corn was stunted and burned and, in that section where a late light rain caused it to tassel, hot winds immediately followed and blasted it. By July 20th hay was selling on the Kansas City market at $20 a ton, the highest price since the Civil War. Streams ran dry, wells and springs failed and pastures burned at the touch of a match as in the late autumn. Cattle began to die from lack of water and panic seized the farmers and cattle growers. Men who, for years past, had sought the markets at that season for

the purpose of buying feeders to be fattened on their corn and cotton seed oil cake, made timid, apprehensive and unreasoning as their herds, hurriedly loaded their stock and shipped to the nearest market. For three weeks thousands of lean cattle came to the Kansas City stock yards, train-load following train-load, until the yards could scarcely accommodate them all. Few were in condition for killing and, instead of buying feeders, the farmers and stockmen of the Southwest had feeders to sell and no buyers were in sight.

The market was demoralized. Prices on feeders dropped as low as $9.00 a head. Still long trains toiled northward from the loading stations in the South and Southwest. Kansas City was the nearest market and at Kansas City the cattle were unloaded, thousands of them to stand for days together without a buyer, eating $20 a ton hay and losing weight with every hour.

Live stock commission men became frightened and securities represented by live stock became uncertain. Cattle paper threatened to become as worthless as Confederate bills.

In the meantime the great beef country for a thousand miles south of Kansas City was being stripped of unripe cattle. Traders on the Kansas City market said it meant a shortage of beef cattle the following winter and spring. Some predicted prices by the following February would go as high as $8.00 a hundredweight. This was exaggeration apparently, but it was justified by conditions. While the high prices came somewhat later than the traders predicted, and fell short, they reached in April (of the present year) the highest mark since 1882. The top price for beef cattle during that month in the Kansas City stock yards was $7.25 a hundred.

While the panic caused by the drouth was at its height packers said the emptying of the Southern and Middle Western sections of cattle would result in a shortage in the spring, which would be the cause of slack work in the packing houses and high prices for meat. There was nothing, however, for the farmers and cattle raisers in the drouth parched country to do but sell. There was no feed in sight for future use and no water for immediate needs; so they hurried their thirst plagued stock to market. For many days a serious problem confronted the shippers with stock jammed into every pen in the Kansas City yards. Few buyers were on hand from the parts of Iowa, Nebraska and Illinois not affected by the dry weather, but they did not relieve the congested condition. When the situation had grown almost desperate, the bars of the Northwest were thrown down and buyers from Montana, Wyoming, the Dakotas and Colorado came in. They selected the young animals and shipped above 250,000 of them into their country, where there was plenty of grass and feed.

Other buyers, men who owned well watered ranches in the South, having held back until the market was forced down, bought the remainder of the cattle and shipped them back to the country from which they came. These men, experienced feeders, saw that ultimate returns would justify them in feeding the cattle on sixty cents a bushel corn and $24 a ton cotton seed oil cake. They had been through less serious panics before. So about fifty per cent. of the cattle shipped from the South and Southwest were sent back. They constitute the available beef supply of the present. It can last but a short time.

The cattle shipped into the Northwest will be held two years, for the greater part, as they cannot be matured and made heavy enough to pay a profit in shorter time. The older animals, together with the regular supply from this territory, will begin to reach the markets in July.

The tension of the beef market may be relieved somewhat, however, during this month, when the grass-fattened cattle will commence coming in from the West and Southwest. The ordinary supply may be looked for from this region, which may be said to begin 150 miles west of Kansas City and to extend westward into the heart of the Rocky Mountains. It reaches from the Rio Grande on the south to the British possessions on the north and furnishes cattle from June until the latter part of September, the line of the productive territory moving northward about 500 miles a month.

While the grass country is furnishing the beef cattle during the summer months, with good corn and cotton crops in the Middle West and South and Southwest, that big strip of country will recover from the drouth of last year and will be prepared to supply fat cattle when the grass-fed quota is exhausted. Thus,

by next November, in case there is not another serious drouth, the beef market will have settled back upon something like the ordinary basis. Without heavy crops in the corn belt, however, conditions cannot change greatly. Farmers, who are the cattle feeders, in Kansas, Missouri, Oklahoma and Indian Territories, are timid, owing to the fact that they have been paying sixty cents a bushel for corn shipped from Iowa and Illinois, something unheard of before. And this in a country where the farmers, three years ago, found it cheaper to burn corn than buy coal.

It is questionable whether, under the most favorable circumstances, beef will ever be as cheap in the United States again as it was five years ago. Since that time there has been a gradual increase in the price of live cattle and a corresponding increase in the dressed meat. This opens the second proposition bearing on high-priced beef—the increased consumption at home and the growing export trade, against the comparative standstill of the live stock industry.

There are fewer cattle in the United States today, in relation to the population of the country, than ten years ago. This notwithstanding the Government animal census of 1900 which apparently proves the contrary. Cattle growers explain the animal census figures by saying they look big because it is the first correct census ever taken. The live stock census of other years was always made up from the assessors' books of the different States and Territories. That of 1900 was taken directly from the owners of cattle and the Government officials pledged themselves to withhold the figures from county and State officials. Consequently, as a man was not numbering his herd for the purpose of having it taxed, he could afford to tell the truth.

The receipts of cattle at five Western markets for the ten years ending 1891, were 6,500,000. For the ten years ending 1901, 7,166,856, or a gain of 666,856. Compare this slight increase to the gain in the country's population in a corresponding length of time and add to it an increase of twenty-five per cent. in the export trade, and you have the primary cause of high-priced beef. Unless the cattle raising industry shall increase to meet the ever growing demand, the unchanging law governing all commerce will continue to assert itself.

Cattle are not coming in at the rate they did a year ago at the Kansas City, St. Louis, Chicago and Omaha stock yards. At Kansas City alone the shortage amounts to almost one thousand head daily. This is not alone true of cattle, but of hogs and sheep. The receipts of cattle, hogs and sheep at Kansas City for the first eighteen days of April for four years were:

	Cattle	Hogs	Sheep
April, 1902	66,300	95,200	35,100
" 1901	81,400	176,600	77,500
" 1900	82,500	161,300	33,500
" 1899	66,800	141,900	66,300

It is a question of the demand out-weighing the supply. A Beef Trust could not limit the output of beef if fat cattle were plentiful and cheap. If it were possible to buy all in sight, dress, store and keep the meat for an indefinite period such an action might be possible. But beef is perishable and no man is bound down by laws prohibiting his killing and dressing meat for his own use and selling it to his neighbors. A capital of $30 or $40 is all that is required to open a butcher shop in a village when fat cattle sell at $4.50 to $5.00 a hundred. It is a business with so many possibilities that the Beef Trust could not block them all.

As it is beef cattle are selling from $6.75 to $7.25 a hundred. Take from this one-third waste and the small butcher cannot compete. He cannot sell steaks at even twenty-five cents a pound and make a profit. So the packing houses undersell him, not because of the Trust, but because they make profit out of the offal which is waste to him.

There is, it is more than likely, a beef combine, and it is no doubt awaiting an opportunity to take possession of the beef market and control it absolutely. But more beef eaters than beef is the simple solution of the present high prices and the Beef Trust surely cannot be held responsible entirely for the increase in the country's population. What is to be done? Federal Court inquiries into packing house combines and the enforcement of anti-trust laws will not put one more steer on the range, nor will it arrange the weights on the scale of profit and loss so that a steer fattened on sixty cents a bushel corn and $24 a ton oil cake may be sold at $5.00 for the hundredweight.

LONDON AS IT NOW IS

THE CHARACTERISTICS OF THE GREATEST METROPOLIS OF THE WORLD, JUST BEFORE IT IS TO BE CHANGED INTO A CITY WITH "MODERN CONVENIENCES"—THE CITY'S IMMENSITY AND INDIVIDUALITY—THE PAST AND THE PRESENT MINGLING ON STREET CORNERS

BY

CHALMERS ROBERTS

IN these days the minds of men turn to London. The mere mention of this heart of the world's widest Empire opens vistas of thought. It may be worth while, therefore, to set forth some of her aspects, something of her spirit, for great cities have souls as well as bodies, making more than half their charm. He who would truly know a city must have lived there long, must have felt its influence on all his changing moods. For me it is as difficult to be sad in Paris as to be lazy in New York. And he who could be wholly modern in Rome could perhaps be wholly frivolous in Berlin. But if the common man is the creature of his surroundings, they, too, in a way acquire his attributes. The great mother city of the English-speaking people most nearly responds to their temperament.

There is a something in the serious dinginess of London which strikes to the very heart of the Anglo-Saxon. He can scarcely fail to love its dirt and din, to feel its almost inexpressible charm. Other cities have been better made, but as London grew, full of contrasts, slums and palaces side by side, it managed somehow to take on the character of the men who made it. Little of light vivacity, nothing of superficiality, but much of honest bluntness. Paris at once suggests a lighted boulevard with pavement tables and much passing gaiety. New York calls up a whirlpool of rushing life leavened by the most beautiful and best dressed of women—perhaps almost too well dressed, at least often seen in carriage gowns clinging to street car straps. At the name of London I always seem to see the best looking men in evening clothes, driving at twilight in hansom cabs along the Embankment where the myriad lights tremble on the water of the Thames.

Many pictures will follow this for him who knows his London well. Most frequent memories will show gray days if not wet ones. Rain in London is dirty rain and the swimming streets flow with black pitch instead of water. Yet nowhere is sunshine so exhilarating. In winter, after black weeks, a sight of the sun is positively intoxicating. And in the summer no sky is brighter and no sun so genial and temperate as those of England. Even in the sunlight there is a soft mist which prevents too great a revelation of the all-pervading dirt and dinginess.

A London Sunday! Nowhere else is there such a change from crowded week days. An American, fresh from the hurry of New York, would at once conclude that a great pestilence had wiped out the population. Long miles of empty streets and shuttered houses give the impression of a dead city with a stray omnibus or an even more infrequent cab. Men who work in the busy city proper here live in the suburbs and those who live in town make for fresh air on Sunday. The place is so empty that it is difficult to buy food or drink—two-thirds of the restaurants do not open on Sunday at all. A foreigner ignorant of the language might go hungry for failure to find a place to eat.

Too empty on Sunday it is too full on Monday. The chief memory of traversing London streets is of being blocked, sometimes for half an hour, wedged in a mixture of vehicles ranging from motor cars to donkey barrows and even porters with heavy packs on their backs. There you may sit and curse your fate with dirt in your eyes and nose and din in your ears until the wonderful monarch of the street lets fall his commanding hand.

London streets at night are different from

any other. People go to bed earlier. There are rigorous laws closing all places of amusement at half-past twelve. Not long afterwards the streets are so empty that a great army of cleaners comes out to wage its little battle against the dirt. In summer it is daylight at three o'clock in the morning. Merrymakers must hasten home if they do not wish the dawn light to catch them. No sooner are the great thoroughfares washed and swept than the harbingers of another day's life appear—great market vans on their way to Smithfield or Covent Garden with food for the sleeping mammoth's breakfast, postal wagons, to and out from Fleet Street, the one all-night place in town, with great, freshly printed stacks of morning papers.

To ears from the New World a Babel of noises must grow customary. On my first morning in London a curious song rang under my windows—a clear tenor voice of much sweetness—singing over and over the same few haunting bars. Out of bed I ran to the window. A blind man, carrying a basket tray before him and led by a boy, sang:

> "Buy my lavender, sweet lavender;
> Sixpence a bunch."

As his herbs last, he never fails to pass my windows on Wednesday mornings. It is always four o'clock in the afternoon, in time for tea, when the milk woman is heard coming down the street, singing: "Milk-o-o-o." And if I sleep late I always know it is Friday morning and nearly nine o'clock when a certain German band strikes up beneath my windows. One comes even to know the regular visits of different hurdy gurdies by their repertories. And always on Sunday after church an old blind woman with a croaking voice comes down the street singing hymns while a little girl picks up the pennies thrown to her from windows.

Besides sights and sounds there are smells—the most distinctive odor,—freshly made tea. Tea is far more frequent as a breakfast drink than coffee, and between three and five o'clock it is all-pervading. From drawing-rooms and areas it greets you, and even in the heart of the business districts from shops and offices. For these leisurely workers not only spend more time over their luncheons than the New Yorker takes for dinners, but everywhere men work tea is made or brought in or gone out for at half-past four. The man who must do his work with the heads of business houses is fairly disheartened at their slothful habits. It is useless to try and see a chief before eleven. Between one and three he eats and digests a comfortable luncheon. And after four you are sure to find him over his tea if he has not gone out for it.

In spite of its serious appearance London is really a city of leisure. It is a capital in the truest sense of the word. It draws to it men from the wide world. Men do their active work without its boundaries and then come to London to conquer the beyond world of honors there. Further fields, in politics, art, science, or finance demand further labor, but to storm and stress of newer countries succeed a stately dignity. In more ways than one the Londoner begins to wear evening clothes. He finds time even to devote to the study of the art of living.

No doubt much of its charm to the Anglo-Saxon comes from its history as the monument of his race. Who can pass Inigo Jones's beautiful banqueting hall without seeing in imagination a king come forth to his beheading? Who can drive up Holborn without thinking of the many carts which have rattled along from the Tower to Tyburn Hill, with a rest at the old leper hospital of St. Giles, where the condemned man was given a drink of ale? But this is England's London, even to the death of George IV practically what the last Charles left it; more distant from the outer provinces of England than today from the uttermost British Colony. If it had marked no other change in London than the one from that, the reign of Queen Victoria would have been ever remarkable. No doubt improvements in transportation and communication had much to do with it. But English love of home was just as powerful. Else London as a city would play as small a part in the life of a Briton as St. Petersburg does to a Russian or even Washington to an American. One can understand why to England, Ireland and Scotland it is "town." But when a man in Australia or India tells you he will see you "in town" next month you get a glimpse of London's place in a Briton's heart. All British roads lead to London as truly as did old highways to Rome.

More than six and a half millions of people are gathered in this one community occupying nearly half a million acres of ground, with

striking contrasts of different races, riches and poverty. Whole quarters swarm with Russians or Germans, Italians or French, and here is even Little Asia where Eastern followers of Mahomet have their quarters with its mosque and its muezzins. In the various villages which have been swallowed up, one counts sufficient towns to make a Western State. There are huge municipalities North and Northeast, South and Southeast wholly undiscovered to the average visitor.

Across the city is from twenty-five to thirty miles. And one can walk across it almost as quickly as travel by public conveyance. There is so little coöperation that direct communication between various busses, trams, or trains can never be expected. Some one has said that London is the most backward white man's city in the world. This is true today. Tomorrow it will all be different. For a new city is coming into being, not quickly,—it would not be itself if it hurried,—but surely. Within twenty years one will see it not only almost wholly rebuilt but a city with all the modern conveniences. Great Government buildings in the course of construction, as well as Yankee-built skyscrapers, will give the old town its new dress. And tube railways burrowing in every direction far underground will actually make it possible to cross London in a reasonable time. Everywhere that it is possible streets are being widened and great avenues cut at untold expense through populous sections. This rebuilding and renovation is not received wholly with satisfaction. The English love the leisurely ways of their capital as much as they love its dinginess and dirt. As one old Tory put it, to his mind the reformers were trying to convert the place into a "shrieking American pandemonium." I am sure that man is fond of penny busses.

The late Grant Allen said that London was after all but a squalid village and to prove this he compared it with the capital of little Belgium. This is true, Brussels is far more symmetrical,—and far less attractive. St. Paul's is lost in narrow alleys, the Palace of Justice is hidden in Fleet Street, the Opera is part of a vegetable market, the Houses of Parliament, low on the river's edge, seem placed especially where they fail of their own effect and spoil that of the venerable Abbey adjoining. There are no municipal buildings in the ordinary sense,—and how can the great hospitals hope for beauty when all of them but two are dependent upon charity? There are more hospitals with more patients than anywhere else—yet the air is made piteous with appeals for their assistance. But if artistic effect is wanting beauty is not absent. The least trained eye will find a world of wonderful effects in the atmosphere, the shrouding softness of the heavy air, the copper in the sky and the haze of the distance. Beautiful vistas are easily found. Stand on the bridge over the Serpentine at Kensington Gardens and see the towers of Westminster nearly two miles away through the trees like fairy palaces. Or, nearer at hand, the bridge in St. James Park will show you the buildings at Whitehall Court like the turrets of some old French chateau framed in green with never a sign of surrounding habitations.

If a man must feel rather than find the soul of a city, he may see its heart where the flow of people is thickest. When I set out to make the acquaintance of a new community I leave its monuments and its views for a later day. I find out where its inhabitants throng and there I sit me down to breathe in what the writer would call "atmosphere." In London for all its sloth there is no lack of this telling life. And if you would spend a time in its very heart, I would take you to the small square bounded by the Bank of England, the Royal Exchange and the Mansion House. The throbbing multitude which beats in and out of here all day, which never rests from morning till night, is like the pulsing flow of a great artery.

Here is the heart, the noble river is the great sinew, its first source of strength. Upon it is a city of ships, seemingly as unlimited as the city of houses we have just passed. This is the pool of London where are the largest docks and where the almost innumerable anchors are cast. And if you seek for the cause of all you have seen here it will break in upon you. Here you will learn the secret of the power, the wealth, the greatness of the Mistress of the Seas. Its growth has been steadily to this end since the historian sitting in Imperial Rome wrote that London was famed for its merchants and its many ships. I wonder if he dreamed of the time when its glories would far excel those around him.

FRANK A. VANDERLIP

FORMER ASSISTANT SECRETARY OF THE TREASURY AND NOW VICE-PRESIDENT OF THE NATIONAL CITY BANK AT NEW YORK—HIS VISITS TO THE MONEY CENTRES OF EUROPE AND HIS REPORT TO PRESIDENT McKINLEY — NOT YET THIRTY-EIGHT YEARS OLD HE HAS ALREADY ACCOMPLISHED AS MUCH AS MANY WHO HAVE FINISHED THEIR CAREERS

BY

FRANK H. BROOKS

ONE morning in July, 1901, President McKinley was at his desk in the White House when his former Assistant Secretary of the Treasury, Mr. Frank A. Vanderlip, was admitted. The call was not unexpected. Mr. Vanderlip had landed in New York the day before on his return from a three and a half months' visit to the capitals of Europe. He had resigned his place in the Treasury in the spring. In saying goodbye to the President, Mr. Vanderlip outlined to the Executive the object of his visit. It was to make a study of finance in Europe, and of the industrial conditions of that country. Mr. Vanderlip had been elected Vice-President of the National City Bank of New York before his departure. It was understood before the reëlection of Mr. McKinley that Mr. Vanderlip would resign in March, 1901, the place to which he had been nominated by President McKinley in June, 1897.

"I shall probably be here when you come back," said the President in parting with Mr. Vanderlip on the eve of the latter's departure. "I am most deeply concerned in the questions you are going to investigate. Come and see me and tell me all about them when you return."

The call in the July morning of 1901 was in fulfilment of Mr. Vanderlip's promise. Congress was not in session. The President was waiting to go to Canton. He was in the shadow of domestic affliction. His journey to the Pacific had been cut short. A melancholy interest attaches to this call of Mr. Vanderlip, because his oral report, unofficial, was the last extended talk on European conditions to which the President ever listened.

When Mr. Vanderlip went to Washington with Mr. Gage in 1897 he had never been affiliated with any political organization. He was a Republican but had never aspired to office. He had been a member of the Union League Club in Chicago for several years, but at no time had he participated in any of the political deliberations of the club.

One day early in the first administration of Mr. McKinley, after a Cabinet meeting, Secretary Gage remained for a conference with the President. The Secretary asked for an assistant whose views would be in harmony with his, and with whom there might be such confidential relations as should exist between a chief and his first assistant. The next day President McKinley nominated Frank A. Vanderlip to be Assistant Secretary of the Treasury. The nomination was promptly confirmed by the Senate. When Mr. Vanderlip accepted the tender he had no political ends in view. Before he left Chicago he had planned his career. It was his determination to master the problems of finance. He had resolved to become a banker. The Assistant Secretaryship of the Treasury offered an opportunity that would enable him to realize his expectations sooner, perhaps, than he had anticipated.

In leaving Washington for his trip to the European capitals Mr. Vanderlip, by reason of his former official relations with the Government and, it may be added, his social relations in official circles, was provided with extraordinary letters from the Secretary of State to every ambassador and minister of this Government, and from the heads of the Foreign Legations in Washington to their Ministers of State and Finance.

The journey necessarily required an expenditure which few men of Mr. Vanderlip's financial condition would have undertaken.

for Mr. Vanderlip was not a man of wealth in the meaning of that word in this country. That he made his visit under such conditions emphasized a trait in his character which only his more intimate friends knew him to possess—a determination to do whatever he undertook. The capitals visited were Rome, Paris, Berlin, Vienna, St. Petersburg, Copenhagen, Stockholm, Christiania, Belgium and London. Other cities, especially those in which there are great industries, were also in his itinerary.

Soon after his return he was asked what was his first most interesting impression abroad. He replied, "An incident in Berlin. I was not unmindful of the fact that Germany, in many respects, was not fully up to us in finance and trade. I was not aware until my visit to Berlin that her financiers were so conversant with our language, geography and our conditions. I was asked to meet the officers and directors of the Deutsche Bank of Berlin, which is to Germany what the Bank of England is to that country. I knew in advance that the officers and directors of the Deutsche Bank were advanced in all questions that were likely to be discussed at the dinner. But I was surprised to find that each one spoke English as fluently as our best people, while their familiarity with our trade conditions was a revelation. So much, I thought, for the sweep of education!"

In connection with this statement Mr. Vanderlip was asked whom he regarded as the greatest financier in Europe. He answered without hesitation, "Sergius de Witte, the Russian Minister of Finance. We do not hear much of him in our country. Except to the Czar and his immediate entourage M. de Witte is well nigh inaccessible. But for our ambassador, Charlemagne Tower, I think in spite of my credentials, I must have failed in my effort to see him. But Ambassador Tower made the interview possible. M. de Witte does not speak English, although he understands many English words, especially those which have bearing upon the questions of which he is master. In every way I found M. de Witte very democratic. When I was presented to him he was at his desk. Before him were piled enough documents to have protected him from any physical attack. When he had received me he lighted a cigarette, put his hands behind his head, leaned back in his chair and blew rings of smoke upward while he never hesitated for a word. The interview was through an interpreter. The longer I remained in his presence the more was I impressed that he was the lion of finance in Europe. At the time I met him he was in the throes of the great question which involved Chinese indemnity. It was the Eastern Question at the moment, but for all this M. de Witte was interested in American questions, and asked intelligently about our trade. and discussed our financial system with astonishing perspicacity."

It is of interest to note that President McKinley was more concerned in Mr. Vanderlip's account of the latter's interview with M. de Witte than any which the former Assistant Secretary of the Treasury had in Europe.

The United States Government and the great financiers of this country are beneficiaries in many respects of the foreign visits of Mr. Vanderlip; but the most important, perhaps, are the many duplicate documents relating to the financial affairs of Europe which Mr. Vanderlip was enabled to procure and bring back, documents which could only have been obtained by one possessing Mr. Vanderlip's advantages. There is no State secret concealed in these documents, but enough is known to justify the prediction that they will have enhanced value in a near future.

In dismissing Mr. Vanderlip's mission to the European capitals the following abstract of his conclusions which he gave to President McKinley the last time the two were together will be interesting:

(1) The United States has much to learn from Germany. That country is stronger than this in technical education and in commercial training adapted to the needs of their representatives in foreign countries.

(2) This country at present has no preeminent command in the world's money market.

(3) But eventually the United States must enter the European security market, and sooner or later we shall hear less of English and German syndicates in this country.

(4) Industrially, especially in the matter of transportation, we are superior to any country in Europe.

(5) To quote M. de Witte, Militarism is the bane of Europe. It is the nightmare of the financiers of the Old World.

If there were any dramatic situations in the formative period of the life of young Vanderlip they have been eliminated. So far as can be learned his youth and early manhood were marked by that conservatism and continuity of purpose which accentuated by later events are his most conspicuous characteristics today. The town of his birth, Aurora, was known at the time, November, 1864, as the terminus of a division of an Illinois railroad. Its population was largely composed of mechanics, because the machine shops of the division were there. His boyhood was spent on the farm near Oswego, a smaller village than Aurora and not many miles from the latter. The blight of the Civil War was still upon the country when young Vanderlip was a pupil in the Oswego public school. His education was completed at the University of Illinois and at the old University of Chicago and at a time when neither school was fully equipped. After finishing his course in Chicago he returned to Aurora. All roads in that village terminated in the smoke and confusion of the machine shops. Young Vanderlip had none of the advantages which open up the way for success without labor. Without hesitation he went to work in the railroad shops as a machinist. It is remembered in Aurora that he was at the door of the shop in which he worked daily before the door opened in the morning, and that he was the last one to leave after the whistle sounded the quitting hour. While thus engaged he mastered a system of "shorthand" which was of value to the young machinist later. As he expressed it, "It helped me many a time in an emergency."

The pastime, for his study of stenography was so regarded by him, doubtless shaped his destiny. In one of his visits to Chicago he called at the *Tribune* office. He was curious to learn how the news of a great city was gathered and printed. At the end of the visit he had engaged as a reporter. He remained on the *Tribune* staff until 1894. During the time he had "worked up"—that is what advancement meant on a daily newspaper then—from general reporter to financial editor. He went to his desk daily with the same regularity that governed the pressman. He still lived in Aurora with his widowed mother and sister. It was an hour's run between Chicago and his home. As reporter and financial editor he made the trip from Aurora to Chicago every morning, returning on the late night train when his work had detained him in the city. There was no "day off" in journalism when Vanderlip was a reporter; no nights at the theatre; no suppers after the play; no banquets at clubs.

As financial editor of the *Tribune* Mr. Vanderlip soon had the confidence of Chicago bankers and financiers. His department was authority in monetary circles. It was while he was at the head of that department that he met Mr. Gage, then President of the First National Bank. For several years Mr. Vanderlip had no assistant in his work. He was his own reporter. In the newspaper parlance of that day "he legged it from bank to bank."

A year before quitting the *Tribune* staff Mr. Vanderlip was urged to accept a vacation in consideration of the faithful performance of his work. He went to London and Paris, visited Florence, Cologne, Naples and Egypt, hurried across the Alps, went down the Rhine, tarried at The Hague in the land of his forebears, and returned to his work. He arrived in Chicago on a morning train from which he went directly to his desk. When his day's work was done he took the night train for Aurora as methodically as when he was a reporter.

In 1894 he purchased an interest in the *Economist*, a financial journal of high standing and was its associate editor until the spring of 1897, when he went to the Treasury Department with Mr. Gage as the latter's private secretary, serving in that capacity until nominated Assistant Secretary by the President.

Tradition in the Departments in Washington has a depth of root which has defied the political revolutions and changes that have culminated at the national capital. The Treasury Department's tradition is a political antique. When Mr. Gage became Secretary the cobwebs were loosened, and the old corridors of the gray structure the site of which "Andy" Jackson selected when he stuck his cane in a swamp-muck, had a thrill of life. Mr. Gage was at his desk a few minutes before nine o'clock in the morning. Mr. Vanderlip usually awaited him. The building is closed to visitors after two o'clock P. M.

Work in the various departments ends at four P. M. At that hour an army of employees, men, women and children, white and black, bowed and erect, sally from three sides of the old building. It was so unusual for Mr. Gage and Mr. Vanderlip to leave the building for two hours later that such an occurrence was cited as an exception.

The Treasury Department became a business office. Clerical work was done on the methodical lines that govern a Wall Street bank.

In no city in the country has Civil Service Reform had such trials and tribulations as beset it in the national capital. The office-seeker and office-holder in Washington is a veteran. The decrepit remnant and often pitiful recollection which was linked to the administration of James Buchanan clings with the tenacity of a barnacle to a tramp-ship's bottom, disputes the newcomer's right of way and "cusses" innovation. To lay the axe to the roots of these fungi in the Treasury Department was Mr. Gage's first order. Mr. Vanderlip was commissioned as chief executioner. He was one of a committee that overhauled the records, classified the service, shifted the clerical force and set the machinery in systematic motion. Civil Service examination soon had a different meaning, and appointments were based upon examinations regardless of previous political affiliations. This did not please the "machine" politician, but it quickly changed conditions in the Department. In the trite language of one of the heads, "Every tub was made to stand on its own bottom." Mr. Vanderlip was the principal factor in this new order of things.

If it be said that this showed only a high order of executive capacity a situation soon followed which tested Mr. Vanderlip's financial grasp.

He was assigned to the actual work known in the Treasury Department as the floating of the Spanish War Loan. There are those who profess to believe that the Spanish-American War was the result of a predetermination for political ends, before the first election of Mr. McKinley. The condition of the Treasury Department up to the time of the declaration of war is a refutation of any such profession of belief.

When the war became a certainty the Government turned to the Secretary of the Treasury, as the head of a great machine shop turns to the chief engineer when the time comes to unleash the force.

The amount of the subscription to the popular loan—the only loan of the kind in the history of this Government—was one billion, four hundred millions. The bonds were to be allotted to 225,000 subscribers. The time for the subscriptions was limited to thirty days. It will be recalled that there was an unprecedented rush for these bonds from every section of the country. Never in the history of the Treasury Department had there been such an inundation of mail as followed the announcement for bids. This had been foreseen by Mr. Vanderlip. Before making the announcement he organized a clerical force of six hundred experts. This force was segregated from the regular force and separated into three shifts. From the day of the receipt of the first offers until the announcement of the allotment, there was not a moment, day or night, Sundays included, when the work was allowed to lag. The order was imperative that the labor of each shift must be cleared and out of the way when the next shift came on duty.

The subscriptions closed at three o'clock P. M., on the thirtieth day. So systematically had the work been done that at ten o'clock that night Mr. Vanderlip was prepared to announce the names of the 225,000 subscribers to whom bonds had been allotted. If the layman is not able from this statement to grasp the magnitude of the undertaking, he cannot fail to have a conception of it in the statement that during the thirty days there were received three hundred and twenty-five thousand applications, and during the last ten days these applications averaged 25,000 daily.

Speaking of the work just after its completion Mr. Vanderlip said, "It was of the utmost importance that the result of the work should be known as soon as possible, and this could not have been known except for the continuous work of a force of experts."

It is said that when Von Moltke was informed that his army was at the gates of Paris he looked at his watch and remarked, "The calculation was correct." Mr. Vanderlip might have repeated the great soldier's observation in connection with the completion of the Spanish War loan.

Photographed by Bradley

FRANK A. VANDERLIP

The next important work in the treasury Department assigned to Mr. Vanderlip was that of arranging and carrying out the conversion into two-per-cent. bonds of four hundred and forty-five million of three, four and five-per-cent. bonds, under the act of March 4, 1890. This called for an intimate knowledge of finance, and when the work was done there was not an error in any of these calculations.

The Bureau of Engraving and Printing was also placed under the supervision of Mr. Vanderlip. He discovered at once that this Bureau, like many others in Washington, was antediluvian. More attention had been paid in that department to the award of spoils than had been given to the necessities of the plant. "This Bureau," said Mr. Vanderlip after he had made an investigation, "is only a machine shop of the Government. Here, least of all, there is no excuse for politics. We want and must have expert machinists. We must have such mechanism as will be most expeditious in the handling of metal."

Here the knowledge obtained by Mr. Vanderlip in the machine shops at Aurora came into play and made him master of the situation. Then he turned his attention to a rehabilitation of the mint at New Orleans where the Government had not put in any new machinery for a quarter of a century. He next moved on the old mint in Philadelphia. The $2,000,000 plant now in operation in that city was planned and started in the new process under the direction of Mr. Vanderlip. It is considered the finest plant of the kind in the world. Most of the new machinery in the Bureau of Engraving and Printing was suggested by him, and the plant was put back into its class—a machine shop—instead of remaining a hall of political awards.

As an incident of the esteem in which Mr. Vanderlip was held during his official residence in Washington it is recalled that when the country had subscribed the fund for the purchase of a home for Admiral Dewey, Mr. Vanderlip was selected to accompany the hero of Manila in the "house hunt," and when the residence had been selected the details of the transfer were entrusted to Mr. Vanderlip.

Has a man of his years—he is not yet thirty-eight—who has accomplished so much, any time for recreation?

He found time when in Washington to furnish the most elegant bachelor apartments at the capital. Every detail of the furnishing was suggested by him, and was in harmony with what he had seen some years before in Cairo. His travels in Egypt left delightful impressions. The Cradle of Civilization is still one of his "day dreams."

In these apartments he entertained in his quiet way many people of the Cabinet, Senatorial and Congressional circles.

He has found time to interest himself in behalf of more than one young man whom he sent to Harvard. He found time to send another, who was an invalid, around the world. He has found time to assist others in procuring for them lucrative and honorable positions, and this without solicitation from the beneficiaries. He has found time to write for magazines, and time to lecture. He was the speaker at the Commercial Club of Chicago on Washington's birthday of this year, when he talked of his recent European trip. He stopped off on his return from Chicago to deliver another lecture in Buffalo. Requests for lectures from Boston and other New England towns await reply.

He finds time always, in his business, to meet his old friends. The grasp of his hand is sincere. His manner, indicative of a consciousness that he is right, is infectious. His ruddy face shows buoyant spirits, good digestion and sound sleep. His laughter is not merely from the lips. He is a correct dresser, has the figure of an athlete and a swinging gait. His hair is thick and tinged with gray. No one has yet accused him of insincerity. In the welcome of his friends he is quite democratic. Strangers who meet him for the first time carry away pleasant recollections. He is not a religionist, but he has a creed—"Be fair to everybody and you will be true to your friends and your country."

In his new relations Mr. Vanderlip evinces the same industry and promptness which characterized him as Assistant Secretary of the Treasury. He is at his desk in the National City Bank at the same hour as the clerical staff, and when the doors close on the daily transactions he is still there, as he was in the Treasury Department, after hours, until his desk is cleared. This is his business motto.

A ROUGH DAY—MID OCEAN

Photographed by A. R. Dugmore

THE FUTURE OF AMERICAN SHIPPING

THE PASSING OF OLD-TIME ROMANCE IN THE CIVILIZATION OF THE SEAS—REASONS FOR AMERICA'S WEAKNESS—THE NECESSITIES OF THE IMMEDIATE FUTURE—THE DEVELOPMENT OF AMERICAN SHIPYARDS WITH THE GROWTH OF SHIPPING—WHAT THE MORGAN MERGER DOES NOT MEAN

BY

ARTHUR GOODRICH

ON a certain night a few weeks ago two men interested in two leading steamship lines were dining together at an up-town club in New York. It was a stormy night and one of the men showed by occasional remarks his anxiety concerning the fast ocean liner which had sailed from his docks that afternoon. His companion, noticing his anxiety, excused himself and going to the telephone called up one of his own ships lying at her pier in the harbor.

"Give me the Marconi operator," he said when he got the ship.

In a few seconds the operator answered.

"We'd like to know how the ——— is weathering it," he said. "See if you can get her, and call me up as soon as you have an answer."

He went back to his friend and, a few minutes later, was called to the 'phone again.

"The boat is all right,—eleven miles beyond the Hook. Says 'Goodby,' " was the message. Two men in a New York club had communicated, in a few minutes, with a big steamship already at sea and assured themselves of her safety.

Photographed by Hord

LYING IN AT HER DOCK

A PACIFIC COAST BOAT SURROUNDED BY ALASKAN ICE

The incident is merely a single illustration of the methods of protection and convenience that modern inventiveness is furnishing to those who in these days go down to the sea in ships. It is a far cry from the staunch wooden hulls fashioned from the Maine forests, with broad sails that Yankee seamen hoisted as they sang and heaved at the windlass, to the great black steel hulls in which steam has taken the place of sails and machines of many men. The old-time barks would return from a year's journey laden with silks from Mediterranean ports, with sails torn by tropical storms, and with a crew that let many a pipe go out over the story of their wanderings. They were the first settlers of the over-sea trade, living the adventurous life of the pioneer. Among them were more Americans than Englishmen or Germans, and nine-tenths of the American products that went abroad were carried by American sailors in American bottoms. American shipping with all its risks was a paying investment in those days. A considerable amount of capital that has gone into the building of modern factories and railroads in the interior was made originally by these pioneers of ocean trade.

Photographed by Curtis & Romans

A FREIGHTER FROM SEATTLE STARTING FOR HONOLULU

Photographed by A. R. Dugmore

MID-OCEAN

In the place of the settler on the ocean, as well as on the land, have come cities—floating cities of comfort, convenience and safety for passengers, with vast compartments in which are stored thousands of tons of freight of all sorts, from perishable fruits to entire locomotives, with triple and quadruple expansion engines which drive the great hulks through storm and fog across the Atlantic in less than six days, meeting schedule time with precision. Collision bulkheads, perfectly regulated bulkhead doors, massive and delicate machines of many sorts make ocean-going as safe as travel on the big lines of railroad. With the element of danger gone, with grimy-faced workmen toiling in a floating machine-shop in place of sea-smelling, yarn-spinning jack-tars, and with the comforts and conveniences of a luxurious hotel instead of the old-time hardy life, the exciting romance of the pioneer period has given way to the quieter romance of modern, well-regulated civilization. On the sea frontiers, along only partly developed shores the old wooden boats still sail, but the ocean has been civilized and is built up with steel and machinery. And in the transition the early American settlers of the sea have delayed to urge their claims until now the Stars and Stripes are seldom seen in any port of the world, and foreign capital is enriching itself by building ships and carrying a billion and a half dollars' worth of American products in them.

The reasons for America's retrogression

A TRANS-ATLANTIC LINER PASSING SOUTH STACK LIGHTHOUSE, HOLYHEAD

AN ACCIDENT AT SEA
On the way in

Photographed by A. R. Dugmore

AN ACCIDENT AT SEA
Dropping the boom

Photographed by A. R. Dugmore

Photographed by A. R. Dugmore

THE LINER WITH BROKEN RUDDER LOWERING BOOM FOR JURY STEERING GEAR

Photographed by A. R. Dugmore

THE LINER BEING TOWED INTO SOUTHAMPTON

Photographed by Julian A. Dimock

COMING UP TO HER DOCK

The *St. Paul* in New York Harbor

THE STEAMSHIP *NEW YORK*

Photographed by R. F. Turnbull

THE *KAISER WILHELM* GOING OUT

The mail boat has just delivered its mail and the vessel is in midstream

he sea are seen in her progress on the

five years, ending in 1851, our registered age increased only six per cent.; in the years before that the increase was -four per cent. In the five years still er it had been more than fifty-two per The real transition came about 1865. iron steamer had been proved success-

A FAMOUS SOUND STEAMER

A TYPICAL SOUND STEAMER

nd for building iron steamers England advantages superior to ours. This was lecisive. Wooden vessels were not put f action at once. But the acquisition e Pacific Coast as the result of the can War and the realization of the bilities of the railroads had turned ican capital toward safer and more re- rative employments on land. On the there was not only the competition

THE *RHYNLAND*

THE *AQUITAINE*

of England, but that of the Scandinavian countries, Germany, Holland, France and Italy.

About this same time petroleum was discovered and the whaling business suffered its death blow. American seamen were very scarce in 1860 and American capital was rushing into railroads, factories, the development of the Pacific Coast and of the Northwest. In 1865 the vast armies were mustered out; the Homestead Act having been passed the soldiers went West and capital followed them or preceded them, to build railroads and towns and provide the new farmers with agricultural implements and everything that they had to buy.

Since 1860 nearly 160,000 miles of railroad

A SHELTERED HARBOR FOR THE SMOKING TRAVELER

Photographed by Byron

A UNIQUE OCEAN HOTEL AND POST-OFFICE

Photographed by Byron

TOWING IN AFTER THE RUN

have been built. According to the face value of shares and bonds eight thousand million dollars of capital has gone into railroads without counting the very considerable amount of capital that has disappeared from the books in process of re-organization. Between 1850 and 1890 the population doubled, the number of persons employed in manufactures increased nearly two and a half times, their total wages increased nearly five times and the capital in manufacturing increased over five times. The increase in manufacturing capital was more than five thousand million dollars in those five years. The development of the country not only absorbed all domestic capital but it absorbed a great deal of foreign capital. Naturally not much capital was going to sea where the field was occupied with men who were satisfied with small returns on capital.

Within the past few years financial conditions have changed both on land and sea. Capital has accumulated and the greater part of the railroad construction has been completed. The money borrowed from Europe for the development of the country is being repaid in the purchase from foreign holders of American securities. Foreign securities are being bought here. Vast profits have accumulated and American money is seeking investment. During the last ten years it has been looking with growing interest upon the ocean. Another powerful impulse has been telling in the same direction; when freight rates were high it did not matter much what the distribution between land and water carriage was; there was enough for the other. About 1869 the all-rail rate on

Photographed by Byron

LOOKING INTO A SHIP'S DINING-ROOM

HOME COMFORTS ABOARD SHIP

grain, Chicago to New York, was $1.10 per 100 pounds. Grain has lately been shipped from Chicago to the seaboard, all rail, at eleven cents. Therefore our transcontinental roads have been one after another acquiring steamship lines on the same principle that Andrew Carnegie linked the blast furnace with the rolling mill and the ore bed and the coke oven with the blast furnace. Witness the Pennsylvania Railroad and the plans of Mr. Hill, to say nothing of the importance of the Morgan ship merger to American railroads.

A HANDSOME STEAMSHIP INTERIOR

Photographed by Byron

When a hundred dollars in Burlington stock paid nearly eight per cent., investments on the sea did not particularly attract Americans; when it pays only four per cent. the sea becomes more alluring. But conditions on the sea have also become more promising.

THE TUG COMING ALONGSIDE

The volume of the world's foreign commerce is two and a half to three times as great as it was thirty years ago, and the growth has not been equally distributed; we have been getting more than our share of it. Mechanical improvements have reduced the cost of production. The cost of carrying by sea has been reduced. In 1860 there was a seaman for every 110 tons; in 1895 there was one for 461 tons. Much more important, the size of vessels has been increased, lowering the cost of carriage per ton. Steel has come into use in building hulls, and they cost less proportionately and last longer. The compound engine was slow in coming in but was quickly followed by the triple expansion engine and the quadruple expansion engine has already arrived. Furnaces have been improved and more work is got from a pound of coal. There was a period of some years when there was an

Photographed by Byron

THE *DEUTSCHLAND* LYING AT HER DOCK

over supply of good iron steamers, and they were to be bought at bargains in every port. Within a few years there has been a great increase in business. The modern steamships are relatively much more economical, profits have been satisfactory, often very much so, and about the time the American capitalist is moved by the condition of things ashore to look towards the sea, he is gratified to find that the profits at sea are by no means bad. Mr. Morgan paid $145 a share for the common stock of the Leyland Line.

It is only within the last few years that the necessity of a merchant marine has been forced upon the growers of products and the makers of goods. Well protected local markets, to which transportation was easy, alone interested the manufacturer. But suddenly it was realized that American capital was producing more than American buyers would purchase, and that there were almost limitless markets abroad waiting for the superfluous product. The "looking outward" period of the United States has only just begun, and the need of ships is likely to grow enormously in the next few years.

THE *NORMANDIE* OUTWARD BOUND

Never were the mills of New England busier than now—when great and perfectly equipped companies are making into a unit many lesser factories; never was the steel industry so prodded by orders from home and abroad—with a result that it is said that raw material is being imported because our mines cannot furnish ore rapidly enough; never were the Southlands so active and prosperous; in the Middle West limitless acres of myriad grain have replaced sage brush and cacti; farther West mills and orchards and mines are developing under the hand of Eastern methods. In the Northwest corner of the country, where there were 10,000 people a half century ago, there are upwards of 700,000 today sending their products in every direction across sea and land.

Indeed, no better evidence can be given of American powers and promise of expansion than the achievements of the Puget Sound country. This beautiful territory was a silent wilderness less than half a century ago. Nomadic fish-eating tribes inhabited its shores and traded their products with the tribes of the interior. Seattle had 1,107 people in

Photographed by R. F. Turnbull

DOCKING AGAINST A STRONG EBB TIDE

LOADING FROM THE DOCKS

Photographed by Von Rapp

Photographed by Curtis & Romans

SAILING FOR CAPE NOME FROM SEATTLE

1870. She has 120,000 including her near-by suburbs today. Tacoma had 73 in 1870 and she has today an excess of 47,000. Spokane, —well, Spokane wasn't thought of in 1870, but in 1880 she had 350. Today she has between 40,000 and 42,000. Let us take the chief city of the State, and confine ourselves to the past few years. In 1896 Seattle had bank deposits of $2,710,371.00; January 1, 1902, she had deposits close upon $23,000,000; In 1896 her bank clearances were $28,000,000; during 1901 they were $143,000,000. In 1896 her building permits were $201,081; in 1901 they were $4,569,728. She had 1,105 telephones in use in 1896 and has now 6,012. She made 2,000,000 brick in 1896 and last year she made over 35,000,000. She exported 92,000 barrels of flour in 1896 and nearly 500,000 in 1901. The statement that the tonnage clearances of the Puget Sound district exceeded those of the San Francisco district has

been strenuously disputed, yet such is the fact as national statistics will show. This statement, however, is not entirely fair to San Francisco for a small portion of Puget Sound clearances are made up of daily clearances of boats plying between the Sound and near-by British ports. However, with the present increase kept up, the Puget Sound district will soon be so far in the lead that there can be no basis for argument.

The imports and exports of the Sound country are enormous. The total value of imports for the year ending December 1, 1901, was $9,211,906. The exports were far larger —$26,481,503. Over 1,000,000 tons of freight and 1,000,000 passengers were handled by Seattle's mosquito fleet alone. This of course is domestic trade pure and simple and does not enter into the other figures above quoted. The total tonnage of ships in the foreign trade alone, entering Puget Sound last year, was 1,220,879 and clearing 1,371,079, an enormous gain during the past five years. It should also be remembered that less than a life-time ago, only log canoes navigated these waters.

Photographed by R. F. Turnbull

READY TO CAST LOOSE THE HAWSERS

Seattle's exports to Japan alone were nearly $5,000,000, or eleven times what they were six years ago. What is true of Japan is almost equally true of other portions of the Oriental

UNLOADING A CARGO OF TEA

Photographed by Hord

world. The fishing industry of the Sound has gone forward by leaps and bounds. The field just outside is of unknown scope and is the finest in the world. This has creaated a demand for vessels. From an old record of twenty years ago, we read that Seattle had "nearly or quite $60,000 invested in her shipping." As near as can be ascertained, that figure has since been multiplied by twenty at least. The Oriental trade has made its demands, the San Francisco and general coastwise trade has made its demands. The Puget Sound district sends 750,000 tons of coal per year to San Francisco alone. The Alaska trade has made its demands,—demands that could hardly be met. The fishing industry has made its demands. As a result, ship-building has been expanded until one cannot foretell the future.

Photographed by Byron

THE *DEUTSCHLAND* COMING IN

The railroads of the country together make

BOUND FOR SOUTH AMERICAN WATERS

Photographed by Byron

up a splendidly organized system with 200,000 miles of track. On the Great Lakes the Steel Corporation owns a fleet of vessels which in tonnage ranks sixth among all the ship companies in the world. Indeed, in the matter of transportation of goods from one point to another within the country, whether by rail or ships, no nation is more thoroughly organ-

A TYPICAL MISSISSIPPI RIVER BOAT

Photographed by Byron

OUTWARD BOUND

A big liner passing the Bartholdi Statue of Liberty in New York harbor

ized than our own. The coasting trade, also, well cared for by our navigation laws, is well conducted and prosperous. But beyond that America ends, and England and Germany begin. Indeed, it may almost be said that the United States is bounded on the east and west by Europe, for the seas are theirs by right of possession. Last year the world talked of an American invasion. But it was an invasion of American ingenuity and inventiveness rather than of American trade. No consistent and successful invasion was ever made in the enemy's ships.

Of the total merchant marine of the world Great Britain owns nearly one-half. More than fourteen and a half million tons of steel, iron and wood are floating under the British flag. And this is not to be greatly wondered at. The steady and rapid development of the English merchant marine is as natural as that of American railroads, for their ships are the nerve and sinew that form the Empire into a vital, active whole. In the United States heavy-laden trains on a constantly lengthening system of tracks, the fleet of carriers on the Great Lakes, and the many lines of coasting vessels have served the same purpose. The steamship interests of Germany, including the two largest individual lines in the world sailing the fastest ships across the Atlantic, reach a total of less than three million tons. The systematic development of a national marine in Germany, however, is, comparatively speaking, in its early stages, while England has been learning and practising the trade of building and sailing ships for many decades. The total of American shipping slightly exceeds three million tons, but more than one-fourth of this amount is on the Great Lakes, and another and larger portion connects the ports along the Atlantic and Pacific coasts. Only two of the thirty-seven lines controlling 100,000 tons and over sail under the American flag and the larger of these, that of the United States Steel Corporation, is on the Lakes. The International Navigation Company therefore is the single large American line which crosses the ocean, and two of its four regular liners were built abroad and sail under the Stars and Stripes only by a special act of Congress. On the Pacific two growing companies, the Pacific Mail and the Oceanic Steamship Company are running American boats to the Orient and to South American ports, and additional ships are building to supplement those now in use. The other sizable lines of ships run chiefly to South American ports, to the West Indies and to Hawaii, and the development of some of these companies operating between the mainland and our newly acquired possessions, furnishes, in the last few years, a good illustration, in a small way, of the reasons for the growth of the English marine. From all the leading Atlantic and Pacific ports, also, large and lesser lines run to all parts of the world under foreign flags. The Norwegian, French and Italian fleets each exceed a million tons and each has large individual lines, notable among which in their popularity are the French line and the Navigazione Generale Italiana.

The building up of the American merchant marine on the Lakes, along the coast, and to the American islands has been of a piece with the internal development of the country. Rapidly built steel ships, the leavings of the whaleback period, the fast passenger and freight boats that travel north and south along the coasts, a multitude of tugs trailing bulky barges and all kinds of sailing craft from sloops to seven-masted schooners are all used in this local trade, the sail ships holding their own, wherever fast time is not a necessity, because of economy in operation. But the manufacturer and the producer have reached far beyond the limits of American shippers' activities, into ports where the American flag is seldom seen, but where American goods are constantly being unloaded from foreign ships. For a firm grasp of these world-wide markets American commercial travelers and ships are needed. To construct a permanent merchant marine will be almost as necessary to the healthy growth of our foreign trade as was the building of carriers from producer to consumer within our own boundaries. It is not possible, nor is it necessary, that a national merchant marine shall suddenly be born, like Kvaser, the old Norse deity, "grown up." It must come step by step with the development of our trade abroad. England and Germany have spent years of experiment with subsidies and many other methods of discrimination in favor of their ship-owning and ship-building companies to obtain the results they have achieved, and even with all

their efforts, keen competition has forced rates so low that only the lines with the fastest, handsomest, largest and safest boats have been doing anything like a lucrative business.

The shipping merger which has lately been planned and formed by American capital is likely to mark a new era in the whole matter of trans-Atlantic trade. If it is permanently successful it will mean better organization and service, better and more definite rates, the completing of a steel groove of transportation around the world controlled by a small body of men, and directed by Americans, and the gradual disappearance from the ocean of the tramp steamer. It will have great advantages over competing lines of ships, but independent companies on the sea are not handicapped by the initial cost which confronts the builders of a competing line of railroad. And, under existing conditions, it means nothing definite in the making of a typically American merchant marine.

But the present organization is only a hint at the probable developments of the future. It is the second step, just as the acquiring of the Leyland line by Mr. Morgan was the first. The "working agreement" which this particular pool will make will not bring hardship to shippers, for the object of the organization is to kill competition, not to make it, and the seas are an open highway. But the striking thing about the merger is that it is the latest link in the long chain of mines and mills, of long lines of railroads and lake ships that carry raw material from mines to mills and the finished product from the mills to the shipping centres, and now of ocean ships which will carry the product which cannot be readily sold here to foreign markets. For the present this is its significance. What it may mean to the steamship business is nothing more than prophecy.

There are exigencies in preparation for which merchant ships flying the American flag seems a national necessity. If we are to carry on a foreign trade which no commercial war can hinder, it must be done in American ships. There was considerable pride, moreover, in the handful of liners which the Government used in the war with Spain. Great Britain in her South African war has impressed nearly one hundred merchant ships into service. It is true that because England did so Germany has picked up a large quantity of trade which it will be hard for England to win back, but, in the time of need, this great fleet of ships was ready to augment the navy.

The modern ocean steamship, with its 15,000 tons of steel and wood enclosing a yawning maw into which eight or ten thousand tons of diverse kinds of freight are crammed; with accommodations for a thousand and more passengers, for many of whom luxurious quarters and service are provided; with its throbbing engines and its well-filled coal bunkers, is a wonderfully complex creation. It is an elaborate hotel, a great warehouse and a grim, well-ordered engine house combined, and the whole given a kind of vital personality that grips one with a sense of power, capacity and control. And the developments of the last few years have been rapid and various. Two of the German boats are cutting from continent to continent in less time than it took a century ago to go from Boston to Philadelphia; starting on schedule time and arriving on schedule time; and a new boat is on the ways at Stettin which will break all records for speed. The furnishings of the ships luxuriously mirror the nations under whose flag they sail, sombre German dignity contrasting with bright-colored French daintiness. The ships are growing larger also, the immense *Oceanic* having given way to the larger *Celtic*, which in turn will soon be outdone by the Pacific steamers of the Great Northern Railroad. Every patent device for assuring the safety of the ships and their people is being tried within the boats' mechanism and upon the water. The seagoing ship, therefore, has grown from a comparatively simple thing of wood and sails to a swift, massive, intricately complex and condensed organism.

The building of a big ocean liner has therefore become a profession, learned most readily in the school of experience. The English ship-builders are its masters, and Germany has perhaps the greatest shipyard in the world at Stettin. While it is true that a few American yards have grown under the demands of the new navy and possess labor-saving machinery as yet unused abroad, it must be remembered that for our half dozen large shipyards England has a hundred and more. The American shipyard will expand with the growth of our merchant marine just

as it in turn will grow with our foreign trade.

How this joint expansion will come is a problem which, in the next few years, will tax the ingenuity of our best statesmanship. Opposed to the favorable conditions in the shipyards are the high wages paid to American workmen and seamen. Whether or not this can be neutralized by economy in machinery and ingenious devices has yet to be proved. The European countries all give subsidies of some sort. The subsidy bill seems likely to be shelved until after the details of the Morgan merger are clear and the fall campaign is over. In the pooling of interests represented by the former there may be an arrangement through the repealing, or the temporary setting aside, of some of the present navigation laws, by which a share of the new ships which the merger companies will build will be built in America and will sail under the American flag. The natural, indeed, the necessary development will be for the United States to build its own ships, further expanding an industry it has, for half a century, neglected, an industry which no nation concerned in the world's affairs can afford to leave undeveloped. The considerable number of repaired wrecks of foreign built ships and boats which have been specially given the right to fly the flag have delayed already the forward movement of our ship-building.

In whatever way the building up of a merchant marine may come it is the evolution in the national growth of the United States which seems to be the next natural development in our economic history. Back of it are the vast resources of the country of whose extent even a guess can not yet be made, the splendid workshops, limitless farms yet unmade, the ingenuity and industry of the most active people in the world. Especially with the opening of hindered markets of the Orient and the progress of the country west of the Mississippi, the Pacific Ocean offers opportunities for national prominence and prosperity on the seas. The connection of railroad and steamship lines into a continuous line of transportation around the world has more possibilities than it even suggests. The shipyards are ready for their work, and though it probably will come slowly, an adequate merchant marine is the next step in the expansion of America into the world.

HOW NEW YORK EDUCATES ITS CITIZENS

FREE LECTURES FOR HUNDREDS OF THOUSANDS IN NEW YORK CITY — VISUAL INSTRUCTION FOR THOUSANDS OF TEACHERS — STATE LIBRARY HELPS OF VARIOUS KINDS — A GROWING SYSTEM FOR THE EDUCATION OF ADULTS

BY

FRANKLIN MATTHEWS

THE sum of $37,500,000 was spent in the State of New York in the year 1901 upon the public school system. All this money, with the exception of about $1,000,000 used for administrative purposes, was expended in the teaching of about 1,250,000 children. But comprehensive and vast as this system of public school education is, it by no means represents all that is done by the State and its various communities for popular instruction. New York has worked out, to an extent that no other Commonwealth has ever approached, a system of adult education. In its various forms nearly 2,000,000 persons get some direct, personal benefit from it.

This education, in the full elaboration of the system, reaches out to the individual in

his home and shares, especially with farmers, some of the puzzling problems of their daily toil. It entertains and instructs hundreds of thousands of people in New York City with an elaborate system of lectures. It presents a system of instruction in travel and geography to 25,000 teachers of the State by duplications, with an accompanying lecture, of the most beautiful lantern slides ever exhibited.

These views are presented in more than sixty great educational centres. In some of the places the plain people share this great benefit. This adult education also presents a system of extension work of the most practical kind among the farmers and school children, all emanating from Cornell University, which represents the nearest approach to a State University that New York has. It puts in operation an extensive scheme of traveling libraries and supports a thoroughly equipped school for librarians. It coöperates in research with small groups of people, many in distant hamlets, called "study clubs." It circulates books and pictures, makes out examination papers and writes letters by the thousands. It even sends agents to the farmer to show him how to do his planting. All this is done in addition to giving free instruction in agriculture in Cornell University, and free instruction in forestry and veterinary science in the colleges devoted to those subjects, also allied with Cornell, besides giving free instruction to the deaf and dumb, to the blind, and to Indians.

Extensive as this system of adult education is it represents a cost of not more than $300,000 to the State and the various communities engaged in it. In addition to all these means of promoting popular education there are other agencies of instruction, public and private, that should be included if one would understand the full scope and sweep of education in New York State, such as private schools, colleges and academies, professional schools, art schools, vacation schools, centres of education for the masses like the University Settlement, Educational Alliance, Workingmen's Institute, Y. M. C. A. courses, the People's University Extension Society, the Brooklyn Institute, Cooper Union, and a host of others, such as church clubs and Chautauqua circles.

"The Free Lecture System of New York City" is what the leading system of adult education in the metropolis is called. It has been and is an attempt to apply university extension methods to the masses of a great city. The Legislature provided for the movement in 1888, and for two winters the lectures were under the supervision of the Committee on Evening Schools. In the first season 186 lectures were given with an average attendance of 115. In the next season 329 lectures were given, but the average attendance was only 81. Then it was that there was called in to take special charge of this work a man with a gift for organization and a keen sympathy for the masses, in addition to a practical knowledge of what was suited to them intellectually. He was Dr. Henry M. Leipziger and he has been in charge of the system ever since. In the first year he raised the attendance 50,000.

Statistics are available for the thirteenth season of the work, although at this writing the season is closing for the fourteenth. The figures show that in the 1901 season 1,963 lectures were given and that a total of 553,000 persons listened to them, which means an average attendance of nearly 300 persons to the lecture. The lectures were given in 52 places in Manhattan and the Bronx, and more than 200 persons were engaged in lecturing, not to mention the number of stereopticon operators, the chairmen of meetings and janitors and others of the extensive machinery required for the work. A little tabular matter will illustrate the growth of this system:

1st	course,	186	lectures,	attendance	22,149
2d	"	329	"	"	26,632
3d	"	185	"	"	78,295
4th	"	287	"	"	100,000*
5th	"	310	"	"	130,830
6th	"	383	"	"	170,368
7th	"	502	"	"	224,118
8th	"	1,040	"	"	392,733
9th	"	1,065	"	"	426,927
10th	"	1,595	"	"	509,571
11th	"	1,923	"	"	519,411

*Round numbers.

All this was accomplished on an appropriation of $80,000 for the two boroughs. Statistics such as these, however, do not tell the full story. These lectures were grouped in this way: hygiene, 80; natural science, 280; history and biography, 246; civics and sociology, 32; descriptive geography, 815; literature, 219; music, 180; art, 100; education, 11. Some of the topics of the lectures tell more than statistics. There is a course on "First Aid to the Injured." Then there were various lectures on the manifold forms of elec-

tricity and chemistry, exhaustive courses on dramatic features of American history, lectures on a bewildering number of subjects of travel in various parts of the globe, discussions of English and American poets, disquisitions on the great musical composers with numerous lectures on scores of phases of musical subjects. Lectures on architecture, as seen in the great cities of the world, add to the variety. Indeed, almost every topic of human effort that can inform and elevate is brought to the notice of the people who go to hear.

The lecturers include men of national reputation. It is no small tribute to the worth of Dr. Leipziger that he has been able to induce college presidents, teachers of every grade, professional men of the highest repute to appear before the masses and, in popular form, set forth the richness of their acquired knowledge, for a mere pittance. It is a labor of love and there seems to be no flagging in the zeal. The people who attend these lectures and sit often at the cramped desks of little children at the top of a public school, or some other uncomfortable place, are those who live near the place where the lecture is given. The lectures are essentially neighborhood affairs, and the plain people attend them. They are intelligent auditors for they represent the masses of American citizenship. A lecturer on physics wrote:

"The questions put by my hearers were, as a rule, more intelligent than are asked inside of many a college."

But this is only a part of the work. On February 2, 1902, the other boroughs of New York City were added to Dr. Leipziger's work and the result will be that hereafter probably 3,500 lectures, two-thirds of them illustrated with the stereopticon, will be given annually to the people, chiefly in schoolhouses, and the attendance will be fully 1,000,000 persons. Who can measure the limits of such work in uplifting citizenship? And who shall say that the $125,000 expended is not a wise investment in civic health? This system of free lectures is being copied in other cities. In addition to the direct benefit it has been to adults, it has encouraged library reading and has enriched school life. It has brought about a better coöperation between the school, library and museum, and it has revealed the real people to the theorists and the theorists to the people. The Hon. Miles M. O'Brien, former President of the Board of Education of New York, summed up the usefulness of these lectures:

"I hold that there is better missionary work, more loyal and patriotic missionary work to be done in this great city than in China, or Japan or India. We must prepare in this great cosmopolitan city the Teuton, the Saxon, the Gaul, the Celt and all the nationalities and combine them in one so that the result will be a higher ideal of American citizenship."

By no means second in importance to the free lecture course in New York City is the system of Visual Instruction supported by the State under the direction of Dr. Albert S. Bickmore of the American Museum of Natural History. This system is based primarily upon the exhibition of stereopticon views. It is essentially a course in travel, for it deals with what may be seen chiefly in travel. Its leading purpose is to benefit the teachers of the State, and it was for that reason that the State took up the work. The views by general consent are regarded as the finest ever exhibited. They are taken by expert photographers who are sent on the special missions necessary to secure them almost to the uttermost parts of the earth. The views are colored with a delicacy that is looked upon as something wonderful and the result is that when the pictures are supplemented by the lectures of Professor Bickmore, whose researches and travels have extended to every part of the globe, a rare amount of information is supplied.

These lectures arose from a desire to make the American Museum of Natural History a means of direct benefit to the people. There was also the expectation of interesting the people in the museum. They have been a success from the time of their beginning in 1882. They began with twenty-eight in the audience. The system now costs the State about $40,000 a year. It reaches fully 25,000 teachers and scores of communities in the State. It also has extended to other States, and sets of pictures have been sent at cost price to the Philippines and to India within a few weeks.

Governor Cleveland vetoed the first bill appropriating money for this work. He made amends by signing a later bill. At first it

was intended to give the lectures only to the teachers of New York City. Under the new law the lectures were extended to all the normal schools of the State, which now number eleven. Duplicates of the slides were sent to each of the Normal Schools with a copy of Professor Bickmore's lecture to be read when the pictures were shown. In 1891 the system was extended to the Teachers' Institutes of the State. There are forty-four of these nowadays. In this way practically all the teachers of the State were reached. Four years later the system was still broadened so that the school superintendents in no less than seventy cities, towns and villages were entitled to duplicates of the views and lectures, thus placing this delightful and instructive method of adult education within the reach of nearly every one in the State.

Professor Bickmore spends a large amount of his time in travel and study in preparation of these lectures. He divides the teachers of New York City into two groups and lectures to them alternately on Saturday mornings. Generally there are eight lectures a year. On Thursday evenings he lectures to the members of the Museum of Natural History and four times a year, Thanksgiving, Christmas, New Year's and Washington's Birthday, he lectures to the people without charge or tickets of admission. As many as 27,000 persons a year hear him personally and hundreds of thousands listen to him through the lips of others, as his lectures are read in the various centres. It requires a lot of office machinery to keep the system in operation, for no less than ninety sets of slides for each lecture are made. The number of slides made, almost all of which are colored, reaches 34,000 a year. The law permits the sale of the slides at cost price, one to each State, upon the sole condition that there shall be no admission fee charged when they are shown and that they shall be part of the system of "free common schools of the State."

It is interesting to note that the lectures recently sent to the Philippines were "Manhattan and the Highlands of the Hudson," "Niagara Falls," "Coast of New England," "Pennsylvania, Virginia and District of Columbia," "Yellowstone" and "California and Yosemite Valley." The Filipinos will get a pretty good idea of this country from those views. For use in the great Methodist Mission in Madras, India, lectures on "Across America," "Hawaii," "Egypt," "Paris Exposition of 1900" have been sent.

Professor Bickmore is a great lover of flowers. He has a way of bringing into each lecture half a dozen or more beautifully colored pictures of the flora of each of the places under consideration, These flower pictures invariably arouse enthusiastic approval. Fancy a lily of the valley thrown on the screen enlarged a thousand times and colored true to nature! It is for the fascinating superiority of these flower pictures largely that Professor Bickmore has been asked to give an exhibition at the great Nature Study Conference that is to be held in London in July of this year. Professor Bickmore took the gold medal prize at the Paris Exposition of 1900 in the matter of secondary education, and it is this system of education of adults in geography and nature study which hundreds of thousands of the adults of New York and thousands of others outside the State may enjoy and profit by, at the small expense to the State of about $40,000 a year.

Altogether novel is the University Extension work, solely for agricultural purposes, carried on by the State through Cornell University. By chapter 430 of the laws of 1899 the sum of $35,000 is set apart for that work. It may be divided into two classes, that for the farmers and their wives, and that for the school children in nature study. The work is carried on to a great extent through printed matter. There are enrolled in the Farmers' Reading Course 30,000 men. In the Farmers' Wives Reading Course there are enrolled more than 8,000 women. The Junior Naturalists Clubs have more than 30,000 pupils, and 1,500 teachers are enrolled as members of the Home Nature Study course. In addition to this about 20,000 bulletins are issued each month and sent to farmers telling what results have been accomplished at the experiment station established at the University.

Here, it will be seen, is the latest development in American university education, that of serving the masses directly. But the extension work at Cornell goes much further than the circulation of printed matter. One of the staff of teachers in the summer spends his entire time going from farm to farm giving instruction as to the most approved methods

of planting and harvesting. He also encourages the experiment idea and this summer there will be several hundreds of plats of potatoes, buckwheat, alfalfa, beans and wheat, all cultivated for comparative purposes directly under the supervision of the teaching staff of the agricultural college.

In addition to this, whenever there is any outbreak of vegetable or animal disease of serious proportions specialists are sent at once to try to eradicate the difficulty, and they generally succeed. Lectures by the thousand upon practical, direct subjects have been given before granges and farmers' clubs and at agricultural meetings. For eleven weeks in the winter free instruction is given at the university to farmers on practical subjects. Besides that, there is a two years' course and a four years' course in agriculture at the university, instruction in which is entirely free.

The farmers' reading course covers three years. There are six lessons each year. The first year is taken up with problems of the soil, the next with questions relating to animal industry and the third with the study of orcharding. Examination questions are sent out and the farmer who follows the work gets some useful instruction. Teachers' leaflets upon a score or more of the most interesting phases of nature study have been sent out. These leaflets tell about trees, and birds, and insects, and clouds, and brooks, and fishes, and flowers and make up a delightful collection. A teacher with the material already in print may have enough topics to last for three years.

Although the Junior Naturalists Club work does not belong properly to adult education it is the outgrowth of the system as developed. These clubs have been formed in hundreds of schools in New York, and even so far away as Egypt and India. The dues are that each member shall write to "Uncle John," John W. Spencer, who conducts this branch of the service, a letter once a month. He is a most revered man, this "Uncle John." He answers hundreds of the letters personally each month and the result is that a love of nature is being fostered intelligently and, it may be said, scientifically among the children of the State. Besides all this, a system of personal correspondence with farmers throughout the State is kept up at Cornell. President Schurman in an address in February of this year, said that from "five to ten thousand letters per year in answer to questions are written by the staff."

All this is a tremendous gain for the betterment of rural life. Professor I. P. Roberts, the director of the College of Agriculture, summarizes what has been done in this way:

"Twenty-five years ago we started at the very bottom of scientific and practical agriculture with all the prejudice against this industry that had been inherited through thousands of years. We have broken this down—that is much—but it is more to have energized a million people throughout the United States who were neglected before but who are now alert and, to a greater or less extent, students of their chosen calling."

An extensive work in Home Education is done in New York State through the Board of Regents of the University of the State of New York by the State Library, of which Melvil Dewey is the head. A large part of this work is through the scheme of traveling libraries. New York State was the first to move in this direction and more than 1,000 of these libraries are now going about the State from place to place, the remotest hamlets being reached with good literature. A report to the State Federation of Women's Clubs summed up this feature of the work recently by saying:

"Perhaps some do not know that on application of twenty-five taxpayers and the payment of $5.00, for transportation, both ways, even the most remote hamlet may have without further charge the use of a library of 100 well-selected, recent and popular books sent from the State library at Albany."

That is strictly true. Traveling libraries from the State library are sent for a mere nominal sum, to any public library under the Regents' visitation, to any community without a public library on application of twenty-five taxpayers, to any Regents' school, to any registered study club, to any grange, lodge or club recorded by the Regents as deserving of such favors. The work with the study club is most important. These clubs must have five members, must lay out a programme of work, must take up some feasible subject and must send an annual report to the State library.

The traveling libraries are of two kinds,

one for general reading, and the other for special study. They consist of twenty-five, fifty or one hundred books, as the case may be, and they are made up after close study of the requirements in each case. Some of the special libraries are called subject libraries and they deal with such subjects as social science, economics, history and the like. These special libraries even go to the extent of providing sets of books for children.

Another great work emanating from the State library has been what might be called the resuscitation of hundreds of small local libraries. By the law of 1892 a system of subsidies for these libraries was established. The State library issues instructions how to form free or public libraries and how to enroll them as part of the library system under the Regents. After all the requirements have been fulfilled an inspection is made and if it is satisfactory the library receives State aid. This has been of great value throughout the State. Every county and almost every city in the State has received some of this money and it is interesting to note that the State educational budget for 1902 provides $51,500 for this purpose.

In addition to this work in adult home education the State has a library school at Albany and in the last dozen years no less than nine hundred places in libraries have been filled by students from that school. From all over the country these students of library methods come to Albany. They also come from foreign countries—Japan, Norway, Australia, South Africa, and others have sent students to be fitted for this useful profession.

The School of Forestry for which the State appropriates $10,000 a year and the College of Veterinary Science, for which an appropriation of $25,000 a year is made, come within the topic of Public Education of Adults by the State solely because tuition is free. Their work speaks for themselves. Nor is it necessary to dwell upon the vacation schools of New York, which, although they do not relate to adult education, are the outgrowth of the desire to supplement the common school system of the State with something practical.

The People's University Extension Society of New York gives instruction, largely through the coöperation of churches, to adults. A great deal of this work is for mothers. Lectures on the care of children, on hygiene, cooking and sewing, with occasional lectures to men on timely and useful topics, are provided by this society. These lectures are given literally in hundreds of places in New York City, and although not a State or municipal institution, are supplementary to the vast scheme of instruction that is given to the people outside of the public school system.

One public agency of study has been discontinued by the State through the opposition of a Senator whose name is linked ineffaceably with the liquor tax system of New York. For years the State, at a cost of $4,500 a year, maintained a weather bureau at Cornell. This bureau had the free service in various parts of the State of 2,500 persons. If paid for such service would be worth $131,000. The bureau collected and published data as to the changes in the weather and climate and secured statistics as to rainfall and crop reports and the like which were of immense value to engineers, courts of justice, farmers, municipalities, and exchanges of various kinds. The records were called for nearly every month by the courts. They were of great public use.

The State Senator referred to charged that the $4,500 given by the State was used to "eke out" salaries of professors at Cornell. He had an investigation committee appointed. I am informed by Professor Fuertes of the Department of Civil Engineering of Cornell, the man most concerned and one of the highest probity and professional standing, that to the best of his knowledge no investigation was made. It was no credit to the intelligence of the Senator that he should make the untrue statement that the salaries of Cornell professors were eked out by the State appropriation. Professor Fuertes does not hesitate to declare that it was the Senator's "own invention." He adds:

"The old bureau is dead and with it the solution of a vast number of important questions in agriculture, commerce, engineering and sanitation."

The popular investigation of climate and weather by 2,500 observers in the State at an annual expense of $4,500 is a matter of adult instruction in a field of widespread importance. It is a pity to lose it through the prejudices of any State Senator, no matter how far-reaching his fame may be through excise or other legislation.

TYPICAL GRINDING MILL IN CUBA

This mill with many others has suspended grinding until the settlement of the sugar tariff reduction question

THE TRUTH ABOUT CUBA

BY

HENRY HARRISON LEWIS

DOES Cuba need our aid? Is she on the edge of a financial depression which will thrust her deeper into the abyss of national poverty than could all the wrongs inflicted by Spain?

General Wood declares this to be true. He proclaimed it from the Palace in Havana, and traveled North many times to tell it over and over again to Senatorial ears which only half listened. He told many things which would be plain to the simplest mind. He described the situation in the straightforward words of the soldier, and when he had finished and returned to his post of duty, certain Senators answered him by insinuating that the plea for tariff reduction was a direct effort to bring greater profit to the American Sugar Refining Company, "which is already the owner of a great part of the crop awaiting export." This, too, in the face of the following statement made by General Wood to the Secretary of War under date of April 9th:

"A large portion of the grinding season has already passed, and the delay in taking final action upon the question of reduction of the duties on sugar has resulted in the accumulation in the island of an enormous quantity of this product, held almost entirely, as repeatedly shown, by the planters and the Cuban dealers in sugar. The amount is so considerable that they must commence to unload very soon, and it is highly probable that the throwing upon the market of this enormous quantity of sugar will result in prices being reduced, and a very large proportion of the benefits granted, if any are granted, will be lost to the planter, and the large sugar refineries will be benefited by the delay which has taken place. In other words, the delay of action pending the investigation of the status of sugar in Cuba is playing directly into the hands of the Sugar Trust, which is making little or no effort to buy, realizing that the market is bound to go to

STEAMERS IN HAVANA HARBOR

Awaiting cargoes of sugar

pieces when the enormous amount of sugar, now being held pending decision on the tariff question, is thrown upon the market."

When I visited Havana early in April there was $20,000,000 worth of sugar awaiting shipment in Cuba. One of the illustrations given with this article was taken in a warehouse then holding 240,000 bags of sugar. Along the wharf in front of the warehouse were ranged schooners filled hold and deck with sugar, and across the bay were more warehouses piled to the eaves with sugar.

To one who had visited Havana before, the scene in the harbor was peculiar. There was an air of waiting, of expectancy, of listening, as if the dragging hours might bring at any moment a signal which would convert inactivity into the rush and bustle of prosperity.

Out in the harbor a number of large freighters swung idly at their anchors, their high freeboards proclaiming a lack of cargo. They had been there for weeks waiting the coming of news from the great Republic, news which would release the embargo placed on the freight they were anxious to carry. Scattered here and there were sailing ships and smaller steamers each tied up by the same relentless chain, and ranged along the water front were other craft, sloops and barges and many tugs, idle and apparently deserted.

RUINS OF A SUGAR GRINDING MILL

Province of Santa Clara, one of the many fine plantations destroyed during the last revolution.

The situation was plain indeed, even to the casual observer. Here was the prosperity of a people held in check because a handful of men in conclave one thousand miles away chose to wrangle and argue, and also to doubt the word of one whose warning had chanced

to intrude upon the interests of one of the "infant industries" of the nation.

The truth about Cuba?

Is it necessary to say more than was told me by the resident agent of one of the largest New York life insurance companies? He said:

"The situation in Cuba today is unprecedented. Never before in the history of life insurance has it been equaled. It is actually true that the need here is so great, that we have loaned money on eighty per cent. of the policies we hold in the island."

While I was in Cuba for THE WORLD'S WORK a number of tourists visited Havana,

THE "CENTRAL"

The sugar mill of Dr. Luis Estévaz y Romero, Vice-President of Cuba one of the few mills now being operated

making in the majority of cases the round trip of ten days from New York which gives from Wednesday until Saturday ashore. I met several of the visitors at the Ingleterra. Said one to me, with a sweep of his arm toward the Prado:

"No one need tell me the Cubans are not prosperous. Look at the crowds out there on the promenade. Do you find people better dressed on Broadway? And the carriages. Seems to me even the beggars ride here. I was down along Obispo Street today. It would do credit to Paris. And all the shops were filled, too. People buying as if they had money to burn. Yet we are asked to reduce

INTERIOR OF A SUGAR WAREHOUSE

In Havana. At the time this photograph was taken there were 240,000 bags stored in this warehouse alone

the tariff on sugar, and all that. Humph! I don't see it."

Two hours later one of the most prominent bankers in Havana, a member of the family which has furnished the present incumbent of the highest position in the Cuban Cabinet, told me that his firm could close the doors of forty-eight of the principal commercial houses on mortgages if they chose to do so.

"Our city looks prosperous," he said, "but we are a careless people, light-hearted and cheerful, with hardly a thought for the morrow. There is little apparent to show the terrible financial condition which undoubtedly faces Cuba, but just as sure as the sun will set tonight, we are bound to be confronted with a crisis that will shake the foundations of our island to its very centre.

"The Americans do not seem to believe us when we tell these facts. We are looked upon by certain members of your Congress as beg-

SAILING VESSELS AT HAVANA

Awaiting cargoes of sugar

gars who whine for alms. We do not ask charity. We are willing to return *quid pro quo* for every favor granted us. Your own men here like General Wood, have told you of our situation over and over again. They have not exaggerated anything. General Wood has studied the situation and he speaks from an experience of almost four years. Why do you not believe him? Is he not worthy of confidence? Is he asking anything for his own pocket? Why do you talk and argue, and spend the waiting days debating the pros and cons of a small tariff reduction on sugar, when we are perfectly willing to grant you adequate concessions in return.

"Is it because you think us ungrateful? No. You are sure that so long as there is a heart beating in the breast of a loyal Cuban, just so long will there be gratitude for the kindly hand which delivered us from the yoke of servitude. Forget? Haven't we living monuments in Cabanas with its cells forever free of the languishing patriot, and in the dead line upon its wall now deserted and moss grown, and haven't we constant reminders in this, our beautiful city, with its enduring lessons of sanitation and cleanliness?

"We are grateful for that which has been given us, but we must ask a little more. We are old as a people, but young and helpless as a nation!

RUINS OF A SUGAR PLANTATION RESIDENCE

This residence was destroyed during the war, and the proprietor cannot raise enough money to rebuild

"Four years ago there were four hundred and nine sugar plantations in active operation in Cuba, today there are one hundred and sixty. As each plantation gives more or less direct employment or means of livelihood to a thousand people this terrible reduction can be understood. Sugar is the present source of our most important income. It is

to us what wheat is to Nebraska or Dakota. Without the profit we derive from our plantations, we could not exist. If sugar is to suffer a loss in value in the world's markets we must for humanity's sake be given a chance to plant our lands with something else. It is little to ask of a great and prosperous nation like the United States, this reciprocity in tariff reduction.

"We certainly have something to offer in return for concessions. Our island has not its equal in agricultural possibilities anywhere in the world. A very small percentage of Cuba is now under cultivation, and the enormous returns we could get from sugar and tobacco under favorable circumstances would require the use of only a fractional part of our available land. Besides sugar and tobacco Cuban soil is splendidly adapted to the raising of coffee and small fruits. Oranges will grow everywhere, and are unrivalled in flavor, delicacy, and the amount of juice.

"Bananas are found in nearly all parts of the island, the largest and best plantations being located in the province of Santiago which, with its magnificent harbors, is within easy distance of the United States. American capital is represented on Nipe Bay and Tanamo Bay. One American corporation, the Cuba Fruit Company, has invested almost half a million dollars in banana lands on the latter bay within the past two years, and the proposition is already a paying one.

"The possibilities of the island as a garden for New York cannot be doubted. With the development of Cuban resources will come better transportation facilities, and it will not be long before the best vegetables, which are of almost perennial growth, will be delivered in New York and other cities throughout the entire year. I am telling you all this because I would have you see that we Cubans have something to offer in return for concessions.

"We are not clannish or conservative down here. We will welcome Americans and will do everthing in our power to facilitate their investments. We realize that the influence of your country can be only for our good. We have opportunities for all conditions of men. The small farmer will find a paradise here and his interests will be safeguarded. There is room for cattle raisers, and for mechanics, and for the majority of the trades. Our laws are just, and our commercial integrity cannot be doubted.

"Cuba no longer is a menace to the health of foreigners. Thanks to the wonderful skill and keen-sightedness of General Wood, our cities have thrown off the fatal pest of yellow fever and are now as salubrious as many of your own communities. The climate is seductive and inviting, and under the spell of the tropics our island blossoms with fruitfulness.

"We lie at your door, and all we ask is a little kindness, even that which you would show to a stranger. You have done much for us, more in fact than we can ever repay, but you must not leave your work unfinished. Aid is needed now at the birth of our little nation almost as much as when we were struggling under the Spanish yoke. That you will grant it, I am assured. You will not permit your good work to fail, nor will you repudiate the promise of General Leonard Wood that we should continue to have your friendship."

Others in Havana talked to me in this strain. The feeling seemed to be that of wonder. They could not understand the attitude of Congress in refusing to grant them a modest concession at this critical period of their national history. There was no fault finding, no criticism, the prevailing impression was that the situation would right itself in good time.

The masses were indifferent, but entirely through ignorance. The coming of liberty, the consummation of ninety years of warfare, the final winning of the fruits of victory, filled their thoughts. To be free at last, to see their beloved flag waving over Morro, to feel themselves a nation of the world absorbed their thoughts.

But the more intelligent classes, the small coteries of men in Havana and other centres who form the brains of the island, had more serious views. The future with its grave possibilities was very near to them. They realized fully the financial problem the island would have to face, a financial problem made real by the fact that the new government's expenses were bound to exceed its income. These men, too, were patriotic, but their love for the flag did not prevent their seeing what would happen if existing circumstances were not speedily changed.

THE RHODES SCHOLARSHIPS FOR AMERICANS AT OXFORD

BY

H. MORSE STEPHENS

PROFESSOR OF HISTORY AT CORNELL UNIVERSITY AND A GRADUATE OF OXFORD

AMIDST the chorus of mingled admiration and surprise created by the announcement of the munificent bequest made by the late Cecil Rhodes for the endowment of scholarships at Oxford University for young Americans, there has been from more than one leader in the American educational world a note of protest against the idea that American students could learn anything worth the learning at the most conservative of European universities. It has been openly stated that in most lines of work they can find better facilities for instruction and experiment at American colleges and universities than at Oxford, and that if they need further training they can best obtain it in the great laboratories, libraries and seminaries in the universities of Germany. These critics fail to understand the intention of the dead builder of empire. It is distinctly stated in his will, which revealed the great conception of a great man, that he desired to foster sentiment rather than learning. The conditions under which the Rhodes Scholars are to be selected indicate that his bounty is intended for boys straight from school and not for mature men desiring an opportunity for post-graduate research.

It has seemed to me, who took my degree at Oxford within a year or two of the graduation of Cecil Rhodes, and who have had the advantage of teaching for the last eight years at an American university, and who can therefore perhaps claim to understand something of what Mr. Rhodes intended, that it might be of some use to explain the provisions made by Mr. Rhodes' will.

A story used to be current at the University of Cambridge that a famous German man of learning once remarked to the celebrated Doctor Whewell, the Master of Trinity College, after seeing the opportunities afforded to the Cambridge undergraduates for sport and relaxation,—"You don't try to make scholars here." "No!" replied the Master, "We make men!" Cecil Rhodes was far more concerned with making men than Doctors of Philosophy. A careful perusal of the passages from the will dealing with the scholarships clearly brings this out, and before dealing with the matter from an American standpoint it may be well to reproduce parts of those paragraphs.

"Whereas, I consider the education of young colonists at one of the universities of the United Kingdom of great advantage to them, giving breadth to their views and instruction in life and manners, instilling in their minds the advantage to the colonies as well as to the United Kingdom of the retention of the unity of the empire, and

"Whereas, in the case of young colonists studying at a university in the United Kingdom I attach the greatest importance, to a university having a residential system such as Oxford's and Cambridge's, for without it students at the most critical period of their lives are left without supervision, and

"Whereas, I desire to encourage and foster appreciation of the advantages which I implicitly believe will result from a union of the English-speaking people and to encourage in students from the United States of America, who will benefit from American scholarships to be established for the reason above given at Oxford under this will, an attachment to the country from which they sprang, but without, I hope, withdrawing them or their sympathies from the land of their adoption or birth.

"Now, therefore, I direct that as soon after my death as possible and either simultaneously or gradually as convenient the establishment of the scholarships hereinafter directed for male students, each of the yearly value of £300, tenable for three consecutive academic years."

Following is a summary of the main points of the will, as published in the New York *Sun:*

The will directs the trustees to establish two American scholarships for each of the present States and Territories of the United States.

"As suggested for the guidance of those having the selection of the scholarships my idea of a qualified student would combine these four qualifications in the proportions of three-tenths for the first, literary: two-thirds for the second, fondness for sport: three-tenths for the third, the qualities of manhood, and two-tenths for the fourth, exhibition of moral force. According to my ideas if the maximum of marks were 200 they would be apportioned, sixty each for the first and third, and forty for the second and fourth qualifications. The marks for the several qualifications should be awarded independently, for the first, by examination: for the second and third, on ballot of their fellow-students, and for the fourth on the report of the headmaster of the candidate's school. The awards should be sent for the consideration of the trustees or some person appointed to ascertain by averaging the marks in blocks of twenty the best ideal of a qualified student.

"No student shall be qualified or disqualified for election to a scholarship on account of race or religious opinions. A qualified student who is elected shall take up his residence within six months of his election to the scholarship payable from such residence. I desire that the scholars be distributed among the colleges of Oxford and not resort in undue numbers to one or more colleges only."

These paragraphs show very clearly what Cecil Rhodes valued in his own university education and what are the advantages he believed to be inherent in the Oxford system. It was because of "the residential system" that he distinctly states he prefers Oxford to other universities. This indicates that he intended his bounty for young men just out of school, and this is emphasized in his suggestions for the selection of scholars, where he specifically mentions "the report of the headmaster of the candidate's school." He had in mind the fact that undergraduates at Oxford generally go up to the university straight from school at the age of eighteen or nineteen. It is for young men at that age and under those conditions that Oxford undergraduate life is most profitable. An older man whether he be English or American would find the "supervision" to which Mr. Rhodes alludes extremely irksome; he would find the instruction given by college tutors of quite a different grade from that for which he was prepared; it is even to be feared that the freedom of the high-school and the miscellaneous nature of the work done there may fit the American boy of eighteen almost as poorly as the mature American student for the best that there is to be got out of Oxford. It is to be presumed that the executors of Mr. Rhodes's will, who understand his intentions, will try first to get picked students from American "Academies" and endeavor to fit a limit of age for the Rhodes Scholars, since it is evident that he hoped to bring young Americans to Oxford at the impressionable age, and not to swell the number of American post-graduate students there.

For the thing that can be most readily felt through Oxford undergraduate life can only be fully appreciated by the young. It is that elusive influence, which may best be covered by the word "atmosphere." The most beautiful passage in the whole body of Matthew Arnold's prose writings is the famous paragraph at the end of the preface to his "Essays in Criticism," and hackneyed though its flowing phrases are to every Oxford man, and unintelligible in their laudation as they must appear to all Americans who have not visited Oxford, they give the best impression in the English language of one side at least of the Oxford atmosphere.

"Beautiful city! so venerable, so lovely, so unravaged by the fierce intellectual life of our century, so serene!

"There are our young barbarians, all at play. And yet, steeped in sentiment as she lies, spreading her gardens to the moonlight, and whispering from her towers the last enchantments of the Middle Ages who will deny that Oxford, by her ineffable charm, keeps ever calling us near to the true goal of all of us, to the ideal, to perfection,—to beauty, in a word, which is only truth seen from another side?—nearer, perhaps, than all the science of Tubingen. Adorable dreamer, whose heart has been so romantic! who hast given thyself to sides and to throes not mine, only never to the Philistines! home of lost causes, and forsaken beliefs, and unpopular names, and impossible loyalties! What example could ever so inspire us to keep down

the Philistines in ourselves, what teacher could ever so save us from that bondage to which we are all prone? . . . Apparitions of a day, what is our puny warfare against the Philistines, compared with the warfare which this Queen of Romance has been waging against them for centuries, and will wage after we are gone?"

In this famous passage the poet-lover of Oxford has dwelt upon one of the subtle phases of her influence upon those fitted to feel it, which not only stimulate the imagination against the materialistic tendencies of the twentieth century, but give a conviction of the long continuity of English life and English thought, which makes the absorption of history more lasting than any instruction in it can be. "What Oxford thinks today, England thinks tomorrow" was an old saying of the fourteenth century, and from that time onward, although the sister university of Cambridge has more truly represented in Milton and Cromwell, in Isaac Newton and William Pitt, in Darwin and Tennyson, the successful trend of modern political and intellectual development in England, yet the Oxford tradition of loving the ideal and the beautiful more than the real and the successful has done much to keep alive the recollection that material success is not everything. English history, wherein that history is not simply political, can best be felt and absorbed in Oxford. It is not merely the fact that John Wiclif was once Master of his college, that makes the Balliol man appreciate the reality of the religious controversies of the fourteenth century; that Walter Raleigh was once an undergraduate of Oriel College did not consciously influence Cecil Rhodes as an undergraduate of that same college three hundred years later; that Charles I and his consort, Henrietta Maria, at the crisis of their fate dwelt in St. John's College and walked in its beautiful gardens, need not blind later residents in the rooms they once occupied to the issues that their enemies in arms represented; and the scholarly memories of Joseph Addison and the slothfulness that marked all college life in the student days of Gibbon at Magdalen College are not likely to make essayists or mar historians by the memories they have left or the tales that they have told. But that these men lived in Oxford and that great movements took root or survived there unconsciously impresses the story of the past upon the impressionable student in the present.

Just as a foreign language can only be acquired in perfection in the land where it is spoken, so a knowledge of the past only takes a form of reality to those who can see that past in its remains as well as in their own imagination. Thomes Hardy in one of his novels, "Jude the Obscure," has tried to paint the effect of Oxford upon the imagination of an untaught man of genius, and Mr. Pearsall Smith in "A Youth from Parnassus" has endeavored to bring out its effect upon a crude youth from a Western State, but its influence varies so greatly according to the amount of the imagination brought to it that no formula can safely be laid down as universal. It can only be asserted that the atmosphere of the ideal, on which Matthew Arnold dwells, and the atmosphere of the historic past, though often unconsciously felt by "young barbarians," influences the one-time resident of Oxford more than he realizes in his undergraduate days, and may lead the tired and war-worn builder of empire, after all his vehement struggle for materialistic success in a virgin land, to the high poetic conception of the union of peoples of common race and common language through sentiment and sympathy in their young days, when sentiment and sympathy mean so much.

Quite apart from this absorption of great thought and of past history may be reckoned the advantage that Oxford gives by its collegiate, or, as Mr. Rhodes calls it, its residential system, for social intercourse among young men of the same age. The great size of the newer American universities and the outgrowing of the dormitory system, combined with the decay of class spirit and the breaking up of harmonious courses by the introduction of electives, has appreciably affected social intercourse in the larger American seats of learning. Graduates of earlier decades assert that there used to be a considerable amount of social sympathy and opportunity in early days, and the enthusiasm of class reunions justifies their assertion, and it may be that in the smaller American colleges of today social surroundings may have the same results, but at the present moment there is a greater intimacy of social life in Oxford

than the present writer has been able to discover in the United States. The mere fact that there are twenty-one different colleges in Oxford, varying in size, traditions, and social possibilities, none of which contains more than about two hundred undergraduates, affords an opportunity for social intercourse on intimate terms hardly to be found anywhere else. The undergraduate life is intimate in all work and sport and society; a man cannot be left out in so comparatively small a number, for each man is an appreciable factor in Oxford college life.

In the smaller colleges, which are not so very much larger than the Greek Letter fraternities, every member must take his part, if the college is to hold its own. The number of teachers, if both the university professors and the college tutors and lecturers are counted, is far larger in proportion to students than in any American university, and the tutorial system gives to every Oxford man the opportunity of being brought into close personal contact with an experienced teacher, who directs his work and watches over his career. The athletic life is far more general than in an American college. To take rowing alone, there is not only the Varsity crew, which rows against Cambridge, to be made, but every college has its college eight, and many colleges two or three torpids, as the second eights are termed, which give every man, who has any rowing ability a chance to row for his college. It is the same with the two varieties of football, with track athletics, cricket and with other sports like racquets and golf; every man with any athletic ability is likely to get his chance in intercollegiate sports, even if he cannot represent the University against Cambridge. Nothing is more startling to the English college man in an American college or university, than to see the intense ardor in the training and competing of the champion athletes among American college men, combined with the absence of opportunities for those who cannot or do not want to be university champions. Since nothing brings young men, who have not learned to appreciate the charms of intellectual activity, so closely together as sharing in athletic activities the advantage afforded by the Oxford colleges for making friendships through common athletic sport and athletic rivalry should not be undervalued.

One result that Mr. Rhodes did not anticipate will probably be the introduction of intercollegiate baseball, for it is impossible to imagine the residence of about a hundred young Americans under twenty years of age, scattered among more than twenty colleges, without foreseeing that they will bring their national sport into the ring of Oxford intercollegiate athletics. The various college societies, whether debating clubs or literary societies or social organizations, afford another means of bringing English college men close together. It is not so difficult to get into a group of twenty when a member of a college of a hundred and fifty as when a memper of a vast undergraduate body of two or three thousand students.

The one great advantage of the Oxford system is in its opportunities for social intercourse, and the Rhodes Scholars, if they be sent young enough, will find plenty of opportunities to assimilate with young Englishmen of their own age in the sort of social sympathy which should produce what Mr. Rhodes speaks of in his will as "an attachment to the country from which they sprang." The liberality of the income to be paid to each Rhodes Scholar will enable them to take every advantage of social and athletic intercourse. Twenty years ago it was possible, though pinching, to get through Oxford on £150 a year, and every advantage could be obtained on an income of £250, while Mr. Rhodes allows £300 a year, for three years, to each of the scholars on his foundation. It is to be hoped that the executors under the will will positively prohibit the Rhodes Scholars from joining the class known as Non-collegiate or Unattached Students; in this category, in which men are members of the university but of no college, the great advantage of complete social intercourse is lost, but the life is very much cheaper. It is obviously intended by the allowance provided, that the Rhodes Scholars shall be members of colleges, and it would be a disgraceful thing if they should be allowed to save money out of their allowance. The same consideration should of course bar the possibility of married students taking their wives with them to Oxford, which would exclude them from the great opportunity of living in college rooms in close communication with their fellows.

This leads to a consideration which must be very briefly treated, since it would be something of an impertinence to make suggestions as to the methods of selecting the Rhodes Scholars before the executors under Mr. Rhodes' will have had a chance to formulate their plans. But a few things must be pointed out at once. It would be violating the testator's intention to allow his benefaction to be used by mature men for post-graduate work. The only safe way to prevent this violation would be to fix a limit of age. The scholarships offered for competition under various foundations at the different Oxford colleges all prescribe a limit of age, generally demanding that competitors should be under nineteen. To this limitation should be added that candidates must be unmarried, since early marriage is more usual under American conditions, particularly in the Middle-Western States than in England. There would be no difficulty in arranging for the literary examination, which Mr. Rhodes suggests as the first qualification. The system of examination pursued in many Congressional districts for nomination to West Point and Annapolis could be adopted, but there would have to be some supervisory authority in the United States which should provide that no one should be selected who could not pass the ordinary Oxford examinations, known as "smalls" and "mods." These examinations demand a modicum of Greek, Latin and mathematics, and the Oxford authorities can hardly be expected to change their whole system in order to admit Rhodes Scholars to the usual university examinations for degrees; and it would certainly be very undesirable that the Rhodes Scholars should not prove themselves the equals of their English compeers in the accustomed university tests. If Mr. Rhodes had desired to alter the university curriculum at Oxford he would have said so. His main aim is to give his young American beneficiaries the advantage of the Oxford residential system.

Far greater are the difficulties presented in the tests for the second, third and fourth qualifications. It is extremely important that some control should be exercised over the second and third tests in "fondness for sport" and "the qualities of manhood," which he suggests should be decided by the ballot of fellow students. Everyone who knows much about American schoolboys, or about English schoolboys for that matter, knows that such a ballot is a very doubtful test. The existence of what is known as "politics" in American high schools and colleges, in which votes are traded off and the boy is prepared to be the father of the politician, might often lead to the selection of very undesirable candidates. If it should so happen, as might well be the case, that many of the candidates by the age of nineteen should have had two or even three years of college life the evil would be intensified. Most certainly some degree of continuity of observation in school or college would have to be provided for, since the observation of a candidate by his fellow-students and his "headmaster" could not be safely based upon the experience of a single year.

The executors doubtless will not formulate any plan without long consultation with leading educational authorities in the United States, and it is profoundly to be hoped that pains will be taken to exclude politics utterly in the work of selection. The principals of high-schools would be more likely to advise wisely than the presidents of colleges, who might be expected to encourage a higher limit of age, which might enable their best students to go to Oxford for what would be, in their case, post-graduate work.

Mr. Rhodes distinctly states that he hopes his great foundation in its usefulness to American students will not "withdraw them or their sympathies from the land of their adoption or birth." It is quite certain that no such effect will be wrought upon American students by a three years' residence at Oxford. The average American boy of eighteen is from the very nature of his public education, and most particularly from the sort of history he is taught at school, a most patriotic being, much more patriotic often than many of his seniors. The glamour of his patriotism has not yet been touched by experiences with practical politics and he is at the enthusiastic age. Men four or five years his senior would be much more apt to be attracted into an unpatriotic undervaluing of their own country. One of the things that strikes an Englishman in his wanderings over the United States is the intensity of youthful patriotism, local, State and National. The great patriotic societies in their encouragement of patriotic

ceremonies in the schools, such as the worship of the flag, have done much to create and maintain an ebullient patriotism in American boys which will somewhat amaze their English compeers in age, who are much more reserved in expressing their patriotic emotions. Such an attitude as that taken by the boys at Westward Ho! School, depicted most faithfully by Rudyard Kipling in one of the stories published in his "Stalky & Co.," and entitled "The Flag of their Country," would be inconceivable in any body of American boys. But for all that there may be a certain loosening of ties, without the establishment of some centre at Oxford, where the American Rhodes Scholars may meet together, where they may read American newspapers, where they may keep in touch by debate and otherwise with American politics, where they may not only keep alive, but make more intelligible their national patriotism, and where they may be partly saved from the inevitable homesickness, which will assail them all in unfamiliar surroundings despite the cordial welcome they are certain to receive.

A good model for an institution that should be the headquarters of American interests in Oxford may be found in the Indian Institute. Sir M. Monier-Williams, who was for many years Professor of Sanskrit at Oxford, conceived the plan of building a headquarters for Indian interests there. He visited India and collected from various Rajas there sufficient money to carry out his purpose. The Indian Institute, which stands near the heart of collegiate Oxford, is not only a museum of Indian curiosities and a library of literature relating to India, but is likewise the place where lectures on Indian subjects are delivered and the headquarters, both of the native Indians studying at Oxford and of the candidates who have passed into the Indian Civil Service. There should be a similar American Institute in the heart of Oxford, where a library of American books and of American periodicals should be collected, where lectures should be delivered on American history and institutions, and which should be the headquarters of all American students whether undergraduates or postgraduates, whether Rhodes Scholars or students living in the University at their own charges.

Mr. Rhodes expressed the desire "that the scholars be distributed among the colleges of Oxford and not resort in undue numbers to one or more colleges only." In making this provision he showed his sagacity, for his desire was to leaven the whole university with Americans, and not to provide a separate American college. So various are the conditions of the different colleges that there is not a single one which might not learn something from having American undergraduates, and which does not have some special shade of ideal or historic atmosphere to contribute. And yet there should be some centre for these American students who are to be scattered through the University, some place where they may learn to know each other and where they may keep alive their Americanism and feel the pulse of their mother country.

There is another side to this question of an American Institute at Oxford. One of the arguments which Sir M. Monier-Williams used in getting subscriptions from Indian princes was that he desired to enlighten the darkness, in which the average young Englishman of college age dwelt, with regard to the civilization, the government and the resources of the Indian Empire. Yet the darkness in which ignorance of India culminated is light compared to the density of ignorance felt by most young Englishmen with regard to the United States. If it were necessary to teach them something of India, it is ten times more necessary to teach them something of America. This could not be better done than by the maintenance of an American Institute, which should be not only a headquarters of Americans in Oxford, but should radiate information about the United States throughout the University. Considering the extent of English ignorance of the United States and the largeness of the bequest made by Cecil Rhodes for the education of young Americans at Oxford, might not a subscription be raised or a fund in some way provided in the United States for building and maintaining an American Institute at Oxford? Since the provision of $1,500 a year for two scholars from each State and Territory in the Union means not less than the expenditure of $150,000 a year or the interest on a capital of at least $3,000,000, might it not be possible for the United States to provide an American Institute at Oxford to balance the Rhodes American scholarships

awarded in the United States? The maintenance of such a building need not be very expensive.

In connection with the American Institute at Oxford an opportunity might be afforded for instruction to be given there in American History and in the meaning of American institutions. This should be done partly to keep alive the interest of the Rhodes Scholars in the history and the institutions of their own country, and partly that instruction in these neglected matters might be given to English students at Oxford. It would be an admirable thing if the instruction in American history and in American institutions could be given by two professors on leave of absence from their American colleges and universities. Much has been said of the great benefit derived by those professors of Greek in American institutions of learning who have spent a year in teaching at the American school in Athens. It might be possible to employ professors of American History at Oxford after a similar fashion. They should not be expected to lecture often, but the inspiration of their presence would keep alive the interest of the Rhodes Scholars in their national history, and their treatment of their subjects would show English students the modern views held of American history through its most famous teachers.

But it would not be enough to have lectures on American history. What the English people have chiefly to learn for their self-government in the future is the working and the successful working of the Federal system in the United States, of which Cecil Rhodes was such a sincere admirer. His labors for South African federation, his desire for the federation of the United Kingdom, as shown in his gift to Mr. Parnell and the Irish Party, go to prove that, much as he believed in empire, he believed still more in federation. The hopes of many English statesmen since the days of that great colonial governor, Sir George Grey, have been that the United Kingdom should federate itself, and providing home rule for England, Wales, Scotland and Ireland, should then be prepared to deal with its imperial problems without hindrance from local politics. In a striking passage in his will Cecil Rhodes protests against the blocking of the discussion of imperial projects by the politics of the parish pump. More than aught else in politics today do Englishmen need to be informed of the success of the American Federal system, and courses of lectures delivered every year at an American Institute at Oxford by distinguished professors of law and by trained and experienced practical statesmen would do much to bring about a better understanding of Federal Government.

It should never be forgotten that the intention of Cecil Rhodes was, in that part of his will relating to the Rhodes scholarships at Oxford, to "foster appreciation of the advantages which I implicitly believe will result from a union of the English-speaking people," and his executors are surely bound to follow out his wishes in this respect. That their task in framing regulations for the selection of the Rhodes Scholars in America is one of enormous difficulty can best be appreciated by those who know both England and the United States, both Oxford and the American colleges, and it is a comfort to know that two at least of those executors, Lord Rosebery and Lord Milner, are both of them qualified by a knowledge of Oxford and a sympathy with the United States to carry out the wishes of their dead friend. They will need sincere and enlightened aid from those men in this country who sympathize with the English ideals of education, and from no one in the United States could they get more sympathetic advice than from the present President of the United States. There is a ring in the following passage with its high ideals of manly life, its sympathy with manly sports and its glorification of public duty, that sounds like an echo from some of the most famous utterances of President Roosevelt:

"My desire being that the students so elected to those scholarships shall not be merely bookworms, I direct that in their election regard shall be paid to their literary and scholastic attainments, and fondness for and success in manly outdoor sports, such as cricket and football, and their qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness and fellowship exhibited during their school days, moral force, character, and instinct to lead and to take interest in their schoolmates, for these latter attributes will be likely in after life to guide them to esteem and perform public duties as the highest aim."

THE BOWERY SAVINGS BANK

A BENEFACTOR OF THE THRIFTY POOR—THE LARGEST SAVINGS BANK IN THE WORLD

BY

EDWARD LOWRY

FOR sixty-eight years it has been the appointed duty of the Bowery Savings Bank in New York to guard small savings. The story of its success has the personal interest of an intimately-written biography. The archives of the bank are a constant record of what city editors call "human interest" stories.

At the corner of Grand Street, a broad, easy flight of stone steps leads one from the Bowery through heavy, bronzed gates and swinging doors (on which legends are gilded in three languages) into a vaulted chamber, cool, quiet and shadowy. The place is reposeful; the noise and fierce glare of the life outside seem a thousand miles removed. It is more like the interior of a church than of a banking house. This impression is confirmed by the rows of seats, fashioned like pews, that stretch across the marble hallway filled on the one side of the hall with men; on the other with women. They sit very quietly, as a rule, each clutching a bank book.

One may see types of all the nations of Europe. Stolid, fair-haired Swedes; bright-eyed, pleasant-faced Irish girls are there; Polish Jews, bearded to the eyes, with greasy hats pulled down on their ears, and faces marked by shrewdness and cunning; Russian peasants, Roumanians, Italians, Germans, all are represented. They have come to put away their little hoards of silver, toiled for along the water front, earned in petty trading, grubbed out of city drains and ditches, sweated out in silence in tailor shops—amassed patiently, guarded with care, cherished fiercely.

The key of the success the level-headed and far-seeing men who founded the bank, and those who followed them, have attained, may be found, I think, in the fact that they did not seek to find a substitute for old-fashioned rugged honesty. The bank has never been managed by "financiers" in the curious modern interpretation of that term. The Bowery Savings Bank is different from other banks because it has a distinct personality. It impresses one as a resolute man who has forced his way to a definite goal.

On May 1, 1834, "sundry inhabitants" were cautiously granted a charter by the Legislature for "a bank for savings to be located on the Bowery north of Grand Street (this provision has never been repealed) to be called The Bowery Savings Bank." The charter was hedged with many safeguards. Deposits were limited to $500,000. On the second of June the bank began business, and received from fifty depositors the sum of $2,020, averaging a little above $40 from each. Curiously enough this average has been maintained until the present time, when the deposits aggregate over $75,000,000, coming in from practically every State and territory in the Union, from new possessions beyond the seas, and from many of the countries of Europe. When the bank was chartered, the largest district on the East Side north of Chambers Street, in which the shipyards, machine shops and other branches of industry were located, had no convenient place of deposit for the savings of an extensive population. This was the field from which the new institution was intended to draw its support. From this beginning the bank has become the most accurate barometer of the financial condition of wage-earners. Its own condition is based on their condition. Should this bank fail, the blighting influence of the catastrophe would be felt in every part of the land. One of the most gratifying features shown by a study of the deposits is the increase in the savings of native-born citizens. One expects an emigrant to save his money; he comes to this country for that express purpose. During the past year the number of

depositors born in the United States has almost doubled. The emigrant depositors from Russia, Roumania and Austria vary little from year to year. They are practically all Jews, and when one of them accumulates a sufficient sum he becomes a trader and employs his capital. The Irish and Italians have banks of their own, run by men of their own country.

On the first of last January the bank had upward of 135,000 accounts open, with a total amount deposited of $75,696,584.25.

The money put in the bank and the persons who bring it make a thousand dramatic stories. Sometimes, the tellers say, the money is flecked with blood, and, perhaps, tiny bits of feather are found adhering to bills. This money comes from the Ghetto, where fowls are killed by the priests and prepared according to the laws of the Church. Nearly always the bills are crumpled and dirty when they are drawn from their various hiding places.

Some years ago the rumor went down the East Side that the present home of the Bowery Savings Bank was being erected with money put in for safekeeping and forgotten by the depositors. The rumor gained credence. It was printed in several reputable newspapers. A bill was introduced in the State Legislature to take all "dormant accounts" from the custody of the savings banks and to put the funds in the State Treasury to be held till called for. This unwise legislation was happily defeated. The so-called dormant accounts are savings banks accounts that have not been disturbed by entry of depositors or withdrawal for twenty-two years, after which time the bank ceases to pay interest. It is the appointed duty of one clerk in the Bowery Savings Bank to prevent accounts from becoming dormant, and to find the rightful owner or owners of hidden treasure. He deals in romances, tragedies and comedies. Sketched in outline, some of the intensely interesting cross-currents of the lives of those who forgot are here presented.

Frederick Cullman, a turner, opened an account with the bank in 1861. In 1863 he died, and his widow transferred the account to her own name. Three years later she transferred the money to her name as trustee for her three children, William, Charles and Franz. In time the account became dormant when the deposits amounted to $1,197.63. After years of search by letter and advertisement, a prosperous-looking man came to the bank and introduced himself as William Cullman. He told this story:

"My father was named Frederick Cullman. He was a prosperous pipe-maker, and while he lived our family were comfortable. He died suddenly; and the shock upset the mental balance of my mother. Still, for a number of years, she contrived to care for our small family, until one day she had a bad attack and was sent to an insane asylum. My brothers and I were cared for in a city institution for friendless children until we were old enough to be indentured as apprentices. Our family was broken and scattered."

He could not remember at what addresses his family lived during the years previous to 1873, except that at one time they lived in a house on the East Side opposite a graveyard; examination of real estate maps developed the fact that one of the addresses given by Cullman the depositor fitted the description given by the claimant, who completed the link by pointing out the exact house. Further investigation satisfying the bank officials, Cullman was told that the bank held over $1,100 belonging to his mother.

One of the longest and most intricate searches the bank officials ever made was when they were searching for the heirs of Thomas McCullen, a silversmith. It was the man's habit, apparently, to save his money, and then forget where he had deposited it. When he died he left over $5,000 in three savings banks, and told no one of his hoardings. It was only after the most patient investigation that his heirs were found.

An Ambassador, a Secretary of War, a Consul, a Commander-in-Chief of the Grand Army of the Republic, and scores of lesser personages in this country and Europe, took an active personal interest in tracing the irregular movements of Ulrich Habermeier, a soldier, and finding his legal heirs. Habermeier went to the war in May, 1863, with the Eighteenth New York Volunteers. While in camp in Brandy Station, Va., in the following July, he opened, by mail, an account with the Bowery Savings Bank, depositing approximately $400. He had in the meantime enlisted in the Fifteenth New York Artillery, Battery G. The bank never heard

from him again. When the account became dormant in 1883, the amount on deposit was $431.29. Then began a patient investigation. At the next annual encampment of the Grand Army of the Republic a list of soldiers having accounts in the bank was read before every Grand Army Post in the United States, and while this resulted in finding several heirs, it developed no trace of Habermeier. The next point of attack was the War Department, and a copy of the records on file was taken, Here the first trace of Habermeier was found. It was learned that he died a prisoner of war in Florence, S. C., in December, 1864.

Hon. Andrew D. White, our ambassador at Berlin, was then requested to intervene with the proper German officials, and have as much publicity as possible given to the quest. In March, 1901, the German consul-general at New York wrote to the bank officials about Habermeier, inclosing a letter written by one Ulrich Habermeier, in March, 1862, to his relatives in Germany. It proved to be the man, and his long-deferred legacy will be divided between his brother, sister and nephew in Germany.

A little tragedy and a romance were revealed when the heirs of Aaron E. Magoun were found. The amount of the long-forgotten deposit was only $89.64, but the bank officials expend as much time and patience over the small accounts as they do over those involving thousands. This account was opened in the '50's, and after it became dormant the bank began a long search. One day, in response to an advertisement, came a thin, faintly-perfumed letter to the bank, phrased in the formal sentences of our grandfathers, and written in the thin, angular chirography of a gentlewoman. The writer said that the name of the missing depositor had revived recollections of other years and other times, and she wished to know where the missing man's relatives might be found.

In response to a civilly worded request for an interview, there appeared one morning at the bank a quaint old lady dressed in the style of forty years ago, with corkscrew curls, lace shawl and mitts, and looking as if she had stepped from an old portrait. The workaday depositors regarded her in wonderment, and respectfully made room for her to pass. She was ushered into the president's office, and showed considerable emotion as she told her story. Magoun, the depositor, hed been her betrothed husband, and his sudden and untimely death had caused her a severe heart wrench. She had lived practically in retirement since her bereavement, and had never married. She agreed to notify some nephews of Magoun living in Massachusetts.

Eventually one of the nephews called at the bank and laid claim to the money. He had no means of identifying his connection with the dead man save a genealogical chart or family tree, tracing his family back to the Pilgrims. This was proved to be authentic, and together with some old letters carefully preserved by the old lady who had first called at the bank proved conclusive evidence, and the account was paid over to the heirs.

The instances given have been chosen at random from hundreds of similar cases, all equally interesting. On July 1, 1895, the dormant accounts amounted to $86,065.74; in July, 1901, the amount had been reduced to $47,350.71. The reduction has been gradual but steady. The total on July 1, 1901, represented 415 accounts. The owners of 101 accounts amounting to $41,928.36, that would have become dormant in the near future, were found between January 1, 1901, and July 1, by personal search, circulars and letters, and a transaction was made on each account. Thirty-five of these accounts, amounting to $6,331.31, would have become dormant in 1901; the others in 1902, 1903 and 1904.

What may be termed the mechanism of this institution—the method by which the accounts of the one hundred and twenty-odd thousand depositors are kept in order, so that it is possible at all times to know the exact whereabouts of each penny, is one of the features that bankers from many parts of the world have studied with profit. There came a time in 1879 when the old system of keeping accounts began to prove unwieldy and cumbersome and a new system was inaugurated.

The depositors' ledgers are grouped in sections, each section being assigned to one bookkeeper. Convenient perforated slips are numbered to correspond with the ledgers. The clerks assisting the receiving and paying tellers make their entires in cash books in the order in which the continuous streams of de-

present themselves, and in addition e the items upon the slips appropri- der each ledger heading, noting the of the account, the name of the or, and extending the amount of the tion upon the slips on its coupon part d the perforation. At the close of the business the footings on these coupons, botings of the cash books and the cash e tellers must agree.

uring the day the bookkeepers post the osits and drafts into the ledgers directly n the teller's tickets. They are provided h narrow pasteboard tags, colored black d red for depositors and drafts respectively. pon the completion of each entry one of ese tags is placed in the angle of the ledger, o that its projecting end may be seen, and hey are kept in position until all postings have been written in—meantime a porter has separated the coupons from the perforated slips, which exhibit now only the number and name of the account. The following morning, before the opening of the bank, each bookkeeper, taking his quota of prepared slips, opens his ledger at the places indicated by the tag placed at the time of posting and copies its amount, placing it against the entry already made upon his slip and removing the tag from its place in the ledger.

The bookkeeper then conveys the footings of his several slips to a summary slip prepared to show only the aggregate of deposits and drafts added to the debit and credit side of each ledger. A head bookkeeper controls a balance or skeleton ledger and maintains an individual daily account with each one of the depositors' ledgers. It is his duty to prove the accuracy of the summaries by comparison with the detached coupon slips. The balance ledger can be proved at any time with the general ledger. It is always proved at the end of each month. The depositors' ledgers are proved with the balance ledger semi-annually.

When this system went into effect the bank's open accounts numbered 70,000 and they increased to 106,000 with a corresponding increase in daily transactions before it was found necessary to make any addition to the clerical force. Now, an error can be located and corrected without inviting the coöperation of a depositor.

The fame of the success of this system having spread abroad, officers of savings banks of many cities of this country, of Great Britain, and even Australia have come to New York to study its workings, so that they might emulate in their own banks the true and precise methods of the largest savings bank in the world.

The working force of the bank is organized on the same permanent grade or rank basis as an army. Each position in the bank has a specific title and salary attached. Promotion is made by merit through the regular grades. The civil-service principle obtains throughout.

Concerning savings institutions in general Mr. John D. Hicks, President of the Bowery Savings Bank, said recently:

"The position occupied by savings banks in the financial world and as educational forces is not, as a rule, generally understood. When people think of these institutions at all, they regard them merely as big or little depositories of the savings of the thrifty classes of the working portion of the community. Primarily, that is what savings banks are, but while that central idea is still kept in view, while it is the animating spirit of these storehouses of small savings, they have, in the progress of years, been developed into establishments of the highest importance in the domain of finance.

"Take, for instance, the savings banks o the State of New York. In round figure their deposits amount to the enormous su of more than $1,000,000,000. . . Throu the instrumentality of the savings bank it all, or nearly all, thrown into remunerat action, and thereby contributes to the vancement of society. If it had not been a able for investment purposes, many to and villages that are now equipped wit the conveniences of modern times would to endure the deprivation of them. I water-works would be in existence, school-houses, fewer church edifices, that extent the masses would suffer and materially.

"Among the 137,500 depositors of t of which I am president, a percen children; that is, the parents or guar posit in the name of the children. . are thus taught in the most effe possible the value of property and t accruing from it." . . .

A DAY'S WORK OF A PUBLIC SCHOOL TEACHER

BY

ONE OF THEM

"O my Mary Ann's a teacher in a great big public school,
And she gets a thousand dollars every year;
You may look in all her classes and you'll never find a fool,
For my Mary gives them all a proper steer."

THE song is not altogether true. Few are the Mary Anns that "get a thousand dollars every year" and fewer the classes in which you may look and "never find a fool."

Nor are the fools, as the singer would imply, the teacher's worst stumbling block. The coward and the liar are planted in her path with a solid obstinacy to which folly is moonshine.

If she be a "specialist" she has a single subject and not "all knowledge" for her "province"; she escapes the Baconian labors of the lower grades where one woman does everything. She is not forced to plunge from sewing to oratory, from clay modeling to fractions; she does not need to writhe in a travesty of Delsarte, to lift her voice in raucous song for keen-eared children who are aware that she flats, nor to construct before their eyes "art lessons" for which she must acquire an agonized wisdom at the Board Lecture. She is not confronted with forty (or eighty) little bodies wriggling for freedom, nor exposed to the onslaughts of vituperative parents.

Her principal interposes an effective buffer between her and the outside world, her boys and girls are used to discipline, she moves from class to class giving to each the best she has on the theme that she herself has chosen. The Man-of-Business says she has an "easy job."

The day's work of this more fortunate Mary begins not later than a quarter before nine in the morning when she must be at her desk, "the world forgetting" no less than "by the world forgot."

The boys are noisy and must be quieted by a joke; the girls are huddled over radiators and registers and must be coaxed or sent into the corridors or the yard to exercise. Then, while she reads the bulletins, letters, and office orders that wait for her, she greets individually the little crowd that are pressing closer around her narrow platform. Any pupil from any one of the half-dozen rooms where her lessons are given is at liberty to consult her in these "free" moments; any child formally passed out from her jurisdiction may return to bring her his anxieties or to retail his triumphs.

The lesson questions have the right of way. She condemns a semicolon, deletes a comma, criticises the diction of a theme, settles a pronunciation, writes a reference list, finds a transition too abrupt, a conclusion too feeble, shakes her head at slovenly margins, dispensing advice and censure, stimulation and caution as she praises. She hears and adjusts complaints, glances over newspaper clippings brought for her interested notice, enters into the home discussion (referred to her) on Single Tax and the correct use of "transpired," gives names of authors, lends catalogues, writes autographs, and listens while Dora talks about the entertainment where Suzanne recited.

Meantime she has sent the information the principal wanted; filled an inkwell; recorded and reported the temperature; received the new boy and given him his place and (with the help of another lad) his books, entering the lacking geometry on the other blank and re-marking the plan of the room to include his seat. She has made a memorandum of the lost key and the broken wardrobe hooks and dispatched it to the first assistant; she has notified the engineer of a banging in the steam-pipes, and signed and added to the office mail a warning card for the father of a truant; she has witnessed and turned in the luncheon orders for the day and O. K.'d the

library slips; she has sent out news of a lecture on Chaucer to her particular class-rooms; she has read excuse notes, checked them off on the records, posted the names of delinquents, given the address of a last-term boy to the music master, hunted out fresh book labels, and replaced a broken ruler and a compass.

The letters from parents she has set aside for later answering, and made hasty notes of those children who want—"a good book about bridges," "some good novels to read to my brother; he's blind," "the best places to buy cheap books," "some interesting stories about Rome." Replies to such requests must be written out clearly, so that fumbling minds won't misread a plain direction.

In all this to appear flurried, to grow shrill, is the deadly error. The dark-eyed Karabinowski must be sent away with courage to remake her "conclusion," the sullen Dobey must be beguiled into faith in his own powers, Florio Ophelia Madeline Hook must find out without a grievous wrench that "Lura Lorraine" is not "a good author," the whining Hogebar-Jones must be spurred with gentle irony till he laughs at himself; honest, quick-tempered O'Shaughnessey must be taught not to scold about the German professor, the vacuous Higgs and the glowering Kabottinska must alike depart in a glow of enthusiasm, flaxen Meta Hanssen must not feel overlooked, the distressed Murphy (Veronica Marie) must be persuaded to take her demerits like a man, and Celeste L'hommedieu inspired with yearnings for other literature than Mary J. Holmes.

The nine o'clock signal strikes while Mary wrestles, a little apart, with a "case of discipline" and with the end of this "free" period she may be said to be fairly started on a day of her "easy job."

The questioners have scattered and her own forty-eight sit primly in their rows ready for roll call and devotions. She takes a quick breath and stands an instant waiting for the last shuffle to cease. The deliberation with which she reads her psalm gives the straightest lie to the scurry of her blood.

As she gathers up her books and papers to leave the field clear for the Latin teacher, she is counting on the best hour of the day—with her best class. It is an hour unworried by anything but the fact that the ventilating fans are out of order. She is armed with books, collected with some labor and brought in her own arms—her books, city library books, books from the school shelves. In every one is some bit to be given delicately to the listeners, morsels to make them eager for the loaf.

But the "best hour" is interrupted. Mr. Bowler has come; the school must get itself together for his inspection. He is a political power and has a voice in the appropriations. The chairman of a political club and the Teacher's Friend mount behind the dignitary to the platform of the big hall.

The chairman speaks first. He is lost in admiration. "There isn't a college in the land any better than this school," he announces with loud conviction. Mary thinks of the ventilating fans, glances wistfully at the windows, and counts two hundred and fifty before he stops.

The Teacher's Friend is a member of the Board; he is unctuous and melting. He dwells upon "your honored and devoted instructors." It seems that for years he has even neglected his family to urge the interests of the Lake City teachers. (Mary knows that he has opposed every bill introduced for them in two decades, but she maintains an air courteously attentive.)

Mr. Bowler is the star of the hour. His eloquence is fertile and adroit. He rhapsodizes on the superlative privilege of having two such guests as his companions, and tells unlovely anecdotes of his own school days "right here in our metropolis." He is a wise man, Mr. Duck Bowler. He makes equally careful use of the caucus, the back shop of his henchman, the club platform, and the Sunday school. As he dilates on the charm and spotless innocence of the young features before him, Mary's gaze is riveted anxiously on the unkempt hair of the girl in front.

"In these days of splendid newspapers and journalistic enterprise," dogmatizes the orator, "you need no other reading for a liberal education."

Furtive glances turn quickly to catch the effect on Mary. She flushes, but her face is set unflinchingly to the rostrum.

"What opportunity wasted!" she makes her silent moan. "And that is all he can say with this thousand looking back at him,—thin faces, earnest, sharp, sensitive; round

faces running over with good-will and jollity; ambitious faces that bear the marks of strain at home; silly faces that need the touch of the 'live coal'——" Her long breath sighs as she joins in *My Country*, and when on the stairway the unimpressed O'Farrell murmurs in Penniman's ear: "Say, ain't you tired harkin' to them men throw bokays at each other," she pretends not to hear.

Sometimes a visitor has met the occasion and the whole school has shown the yeasty fermentation of a growing impulse freshly administered, but this visitor has been a guest of the principal, not the office-seeker posing for notoriety.

The clock hands have moved on to another "free" moment. The same kaleidoscopic action calls Mary from her hidden indignations. While she orders and answers once more, she writes this memorandum for Mademoiselle:

ROOM D

Mary Wohlleber, excused; ill—10:30.
Leah Rosenblum, excused from writing; religious holiday.
Caroline Garvinow, sent to the principal's room for disorder in the hall.
Also absent:
Galeoski (Olga).
Grobinovitch (Ivan).
Post (David).
Smith (Catherine).
Smith (De Etta).

De Etta is a thorn in Mary's side. When the owner of the name is questioned as to orthography she grows haughty and says—"It's French." She wears a short train and a spotted veil and is weak in mathematics. Once she stayed away three days (this was at the beginning of her course) and when she returned she appeared triumphant at the fount of information on $a^2 + ab$.

"I've been working algebra all the time," she explained. "Writing it, you know,—the letters, *a a a* and *b b b!*"

It was she who said, "Oh, I don't need a library card; we have several books at home."

Judicious influence has made an end of the cotton satin skirt, last year's finery dropped to the nadir of daily use, but nothing has yet subdued the cotton lace, the bead trimmings, and the soiled white satin stocks that accompany De Etta's more soiled pink flannel waist. Nevertheless she is a good child, and a handsome, with a willingness to "do errands" that frays the train terribly but gives happy promise of evolution.

The bell brings another silence. Mary gathers a new set of impedimenta and seeks the place assigned. While she corrects exercises she keeps an alert eye on the studying of the fifty over whom she presides.

The exercises are not wholly cheering.

"Apherbility" she reads "is the state of being an apherbile."

"Afferbility is the state of being insane on one subject only."

"Serenade, a greenness as of grass."

"Reverberation, is when it is made again into a verb."

"The equator is a menagerie lion running around between the north and south Pole."

"They climbed Vesuvius to see the creator smoking."

"We celebrate the Fourth of July because Jesus bids us."

"Vengeance. Def'n, a mean desire to pay back. Illus'n, 'Vengeance is mine; I will repay, saith the Lord.'"

"Ingenious, a stupid person, from *in*, not, and *genious*, a smart person.

"Discretion, a difference of sex between animals."

"The early Briton wore a skin, he tied it at the waist. He wore legions on his legs. He had eyes of a blue shade which plainly showed his semi-civilazation. He wore on his feet mocassions or scandals."

The blue pencil poises itself. "My heart will cease to propitiate when I die" is plainly *palpitate*, but why *serenade*—and *discretion?*

Some of the most unaccountable and freakish mistakes she copies in a little book to make merry the heart of an invalid at home. Before them on the same page are:

"Grand opera. The only Grand Opera I know is *Wang*."

"The *Te Deum* is a Grand opra."

"The British museum is the principal building in Paris."

"Aristides was a god; he was the female god of Phoenicia."

"Hannibal was an early Greek explorer who wrote a book called Heroditus."

"Virgil was a Vestal Virgin."

"As I roamed in the deep woods I saw a herd of greyhounds hunting for prey."

"Julius Cæsar was the mother of the Gracchi."

The gong again galvanizes the silence with a stir. It is the hour when Mary faces the girls and boys of her own room. A handful of the corrected exercises make a text for ten minutes, and the unillumined minority get a little reflected glamour from the majority, intelligent and alert. It is "poetry day." The minority think poetry is "silly." Some declare the conviction as undisputable fact. Mary starts heroically with primitive jingle, enlarges on our love of doggerel, rises to "inspired nonsense," and is in the midst of "The Walrus and the Carpenter" when a Serious Person is admitted by an emissary from the office. The Serious Person is not familiar with "Alice." The quotation that so unexplainably rouses the minority from stodgy indifference appears to the guest but an unseemly preamble. When little Leah repeats "How We Brought the Good News" the stranger shows less interest than the reclaimed minority—though little Leah repeats it well. Nor does she thaw when the insistent bell breaks in upon

> ". . . with pleasure thrills,
> And dances with the daffodils."

Instead, she takes two-thirds of the luncheon hour to expound her own theory of "conscientious instruction" and then goes away and spreads evil criticism of Mary.

Mary doesn't know it. She is worrying over a great lump of a girl-woman who is "out to balls" too often and moons sentimentally over boys that wear their hats at an angle and smoke as they walk with their "lady friends" upon the street; she is remembering what she said to the detected cheat in Junior E—— "It is better to be a gentlewoman and tell the truth than to have ninety-nine in history"—and wondering if the child understood.

But though the lot of Jim and Ellen Barstow—tending store till eleven, going to bed at midnight, and studying when they can—may lie heavy on her mind, the surface thought must be cheerful. Jim and Ellen, all young things, should at least see happy faces.

While she eats her sandwich she smiles for joy of their plucky effort and the smile is reflected all along her way as she returns from the luncheon counter. Buoyancy, hope, these are her stock in trade.

There is barely time in the renewed hurry of question and answer to arrange and file a set of examinations. She handles them a little gingerly. They belong to a room from which a smallpox patient has been sent home. Skin diseases, grip, consumption, contagious colds, all lurk in those papers pressed often upon the unconscious lips of the writers, or smeared with damp handkerchiefs and fingers fresh from the rubbing of stuck and swollen lids blinking above eyes sickly and inflamed.

Talks on health go hand in hand in every class with the calisthenics that make a brief respite from the deforming posture of the schoolroom chairs. But the preaching of baths will not kill the odors of bad disinfectant, nor freshen the garments from which unspeakable effluvia arise. Side by side with as dainty a child as ever came, sweet as a flower, from a porcelain tub and the hand of a devoted mother, is set the no less lovely blossom whose charm suffers from the reek of the soil whence it grows.

Nor does preachment always find attentive ears. This is what Theresa stored up of a half hour on cleanliness.

"Our grandmothers had no laws of hygeen. It is good to rench in could water because it opens the paws after a bathing."

Mary battens down the evil imaginings about bacteria, and forgets uncouth smells. Her last reports are in, her "cases" are settled, her clerical work done "to date," her monthly record cards are inspected, her contribution for the loving cup (a tribute to the Teacher's Friend) is disgorged, her assessment paid to the Burial Fund, and she can devote herself to the afternoon classes with a will.

In them are representatives of well-nigh every sort of home, but for the most part they hold (being of the lower grades) the undifferentiated throngs of a big city's rank and file, less individualized, more crushed and pressed by the world's machinery, than the pupils of smaller, more thinly populated places,—less respectful in manner, less thoughtful in externals, than the young people of towns, more aggressively careful to assert their own importance by avoiding any servile politeness, and at the same time more cowed, wore willing to accept conditions as they are. Their ignorance, their sluggishness, their

worst faults even, are results of burdens borne by ancestors, of the stultifying effect of unlettered traditions on parents whose children are not born of a divine and splendid hope. Ambition, to too many of them, is squeezing through the free schools with as little labor as possible and "getting a position" in office or school-room that shall be (save the mark!) "genteel"—and easy.

Mary loves ambition, even crudely forthputting; there is life in the poorest. She looks down into the faces that watch her and knows it is for her to give all that one hour can hold of every vital, life-awakening thought the day theme touches, to change a cheap aspiration to a richer, to drive into the mind wholly dead and callous the sharp point of knowledge, knowledge of the birthright of every child of a republic where victory lies with the will, not the conditions.

Out of her own weariness, she evolves comprehension for them, and she does strenuous battle with the Sluggard Fiend of Drowsiness-ness-and-Boredom, nullifying the effect of the cake-and-candy luncheon, rousing the anæmic girl from her neuralgia, giving momentary calm to the lad with the St. Vitus dance.

The recitation ends, another teacher takes her place, and Mary goes elsewhere to do it all over again for another fifty. If the sleepiest sag from the plane to which her energy has lifted the mass, she rowels herself inwardly and works the harder, conscious that they are helplessly at her mercy, amazed at the sure truth of their response to genial force.

When the dismissal bell clangs she is suddenly a little dizzy, a little deaf, her tongue a little thick. Her good-nights sound to her fainter than they are. Nellie Carey escapes without any ceremony of farewell and pushes another girl too violently. Jim Barstow slams his strapped books upon his varnished desk. Her remonstrance is good-humored. Five and a half hours are a long time for repression.

From the region beyond, separated from her by sliding blackboard walls, the last stragglers appear and clatter across her room, their only exit. The removal of the pressure of a thousand breathing personalities closed compactly about her is grateful. She is glad of the empty spaces where echoes multiply. Sleepiness descends on her like an opiate and she picks up her bag and her gloves with a sigh of relaxation.

"Miss Mary——"

She looks up blankly into the assurance of a brown face that shows itself suddenly in the vacant doorway.

"Will you tell me, please,—is the 'lesson' of the 'Ancient Mariner' kindness to animals?"

Mary takes fresh courage. In this well-bred, quiet-spoken son of a colored merchant is the spirit that restores the balance after many failures.

"Miss Mary——" again. The president of the senior literature club wants advice—about the school paper—about the next subjects for debate.

When the two are gone and Mary turns the key to register her departure, the Bundy clock says *four*, and the janitor, with the flapping of ancient feathers, is stirring from their comfortable repose the germs of year-old diseases. He gives the belated one cheerful goodspeed, looming vaguely gigantic in a haze of dust.

Mary descends briskly to the street. Her soul is uplifted and not ill-content. How can she ever be so greatly oppressed by the vagaries of the few! She feels a tingling haste to open to dull eyes the kingdoms of the earth. She sees them all, boys and girls, in a glamour born of a better perspective. How they have eased her labors by their good-will, carried her messages, listened unrebellious to her sermonizing talks! How much the blue eyes and the brown, the grave faces and the merry, have given to her in strength, in inspiration, in delight! They are hers; she exalts them to their possible best, as mothers may, and when she boards her car, the rolls of uncorrected themes (her evening's work) protruding from the omnipresent bag, she forgets to be annoyed though the gamin on the corner is yelling—"Teach-ah! Hi! get onter de teacher!"

LIVING WITH THE FILIPINOS

WHAT AN AMERICAN TEACHER HAS SEEN OF PHILIPPINE LIFE AND OF THE GOVERNMENT'S EFFORTS TO BETTER IT

BY

ROBERT B. VAILE

A THOUSAND American teachers are now well into a unique campaign in the Philippines. These men and women, while nominally under the War Department, have gone into the villages occupied by soldiers, with no military aid except that of the army Quartermaster's Department as far as the restricted army lines now extend. They have had the best possible opportunity to see the natives as they are.

At Dolores, a town in Abra Province, in the mountainous region of northern Luzon, about three hundred miles north of Manilla and on the limit of civilization, I took my station on September 22d, the very day the soldiers left. Its population is 3,763, including all its ten settlements. There are 652 children of school age, between six and twelve; and there are 864 men between eighteen and fifty-five, of whom four out of five cannot write their names. Of the fifty electors—those over twenty-three who either own property to the value of $250 or who can speak, read and write Spanish or English—about ten cannot write. It is these fifty who choose the local president and the councillors, who in turn elect a provincial governor.

On arriving I found the president of the town at a cock fight. In my best Spanish I asked for food and lodging. He understood, and first showing me a substantial one-room frame building for rent at two dollars a month, he gave me at his own house my first real native meal, of boiled rice, fried chicken, eggs, and poor water. Thus I lived for the next three days, when I moved to my present quarters in the house of the leading citizen of the town, who has just now been elected president. I hire a man to cook and serve my meals for me in my landlord's kitchen.

The next morning I took up my duties in the school, a good brick building with a thatched roof, and with two rooms, each about twenty feet square, the boys using one, the girls the other. The two native teachers, a man and a woman, were doing nothing but hearing the children recite their catechism from memory and perhaps teaching a little of the grammar of the Ilocono dialect. On the rolls there are one hundred and forty pupils but the average daily attendance has been but seventy. There are three good benches and desks in the building and one small blackboard—Spanish relics. Records of the girls' school running back to 1898 show little except the names and ages of the pupils with the names and occupations of their fathers. The school has been held six days a week.

We hold school five days a week, for five hours a day; in the morning from eight to eleven and in the afternoon from three to five. One hour each day is devoted to teaching the native teachers English. In some of the provinces, especially near Manila, training schools for the Filipino teachers were held for a month last summer, but not in this province. The teachers here learn much, however, from the lessons of the children. Night schools for adults, organized wherever there are twelve applicants, are well patronized in Manila and in the larger cities and towns, but here the interest is waning, and when the average attendance falls below twelve the school will be closed.

Teaching our complex, harsh Germanic tongue to these simple people is certainly a task. Some of our sounds the children cannot make even yet. Our voice inflections in questions and commands also come hard, and our spelling—in such words, for example, as "island," "fight," and the past participles ending in "ed"—of course produces the most hopeless bewilderment.

All school expenses are paid by the Commission from the Insular Treasury, supported

stoms receipts. These expenses include st of transporting the American teach- re, their salaries, and the cost of books ther school material. The local author- urnish the building and pay the native ers salaries of five and four dollars a 1 respectively, for men and women. As as the real estate tax becomes available unicipalities must devote at least one- 1 of one per cent. to the support of ls.

: cost of living varies greatly with the on, but the average cost of good living teacher in the provinces is about thirty s a month. From a civil commissary tment we can buy nearly all necessary ican food at a price twenty per cent. : the actual cost to the Government. s grown everywhere, and is sold in this n for about five cents a quart. Chick- sting from three to ten cents apiece and t six cents a dozen are plentiful. Fruit ndant and bananas are to be had the ound. They cost a cent a dozen now. : rent varies from a dollar a month, I am paying here, to ten dollars a month good sized house.

: natives as a rule charge Americans a e price for everything, a trick fostered : extravagance of the soldiers after pay- The natives have learned other things the army too. The children whistle and bugle calls, and they have taken to ig baseball. They know the meaning : Fourth of July and of Thanksgiving The soldiers have been America and mericans to them. The only visitors I had have been either soldiers or teachers, the exception of a German Jew peddler through the country selling brass es to the natives.

: natives live in substantial houses built ven bamboo or of boards, and in some ces there is a brick first story. The mass of them go barefoot except on ys. They all eat with their fingers they are by themselves. They are in- ous and moral. They are childish to a : but they are teachable except when they become impressed with their own importance, as when they are given a little authority. Their chief occupation in this section is the raising of rice, tobacco, corn and sugar cane.

The climate of this part of the archipelago high above the sea is quite agreeable. The drainage is fairly good; there are few mosquitoes; and while in the middle of the day it becomes very warm, the nights are always cool. The cool dry months begin in December, which is the pleasantest one of the three. The rivers have fallen and even the larger ones are fordable by horses.

One of the three teachers who were sent to Jolo, at the southern extremity of the archipelago, writes me that the climate there is the best in the Islands. The boys' school there has been running for more than a year and a half under the direction of an Indian, who speaks Sulu, Malay and English. From the vicinity of Iloilo, on the island of Panay, I learn that conditions are favorable except that the country is only slowly recovering from the ravages of war. Land titles are very insecure, as elsewhere, and affairs are unsettled. I have heard, however, of but one teacher who has had any experience with the insurgents. A band of them came in sight of his schoolhouse, on the island of Leyte, one day, whereupon all his pupils fled.

The town from which I write is on the interior limit of civilization. Farther to the east, up the rivers, are settlements of tribes known as Tinguianes and Alzadoes. We see members of the former tribe in the streets of the town very frequently. The men are recognizable by their habit of wearing only a straw hat and a shirt, and by their long hair. The women are conspicuous for the rows of colored beads on their wrists and arms. They worship idols and recognize no government but that of their own tribe.

From the progress that is already apparent, and from hopeful signs, the prospect for a happy outcome of this unique campaign is bright. As peace crowns the efforts of a regular army so will enlightenment crown the efforts of the army of education.

GOVERNMENT AIDS TO COMMERCE

THERE are three of the Government Bureaus which have been particularly active in extending foreign trade—the Bureau of Statistics of the Treasury, the Bureau of Foreign Commerce of the Department of State, and the Section of Foreign Markets of the Department of Agriculture.

Originally, the Bureau of Statistics was confined to the compilation and publication of our figures of exports and imports, internal commerce, the national finances and the like. In other words, it was a purely domestic bureau; but, since the era of commercial expansion set in, it has been giving more and more attention to foreign industry and trade, and during the past four or five years it has published a great variety of information for the special benefit of our manufacturers and exporters. Although much of the data is not original but is reprinted from various sources, it is so arranged and digested as to make it convenient for reference and of much greater utility than if it had not thus been brought together and intelligently illustrated, as is frequently done, with diagrams, charts and maps.

The functions of the Bureau of Foreign Commerce are more clearly indicated by its name than those of the Bureau of Statistics. It is engaged primarily with the publication of reports from our diplomatic and consular officers on trade conditions and industries in every country of the globe, but it also supplies, by correspondence, a mass of information to our business interests which is being more and more widely used as the export trade increases and a greater number of manufacturers seek to inform themselves as to the prospects for marketing their goods abroad. If an exporter wishes to learn the details of customs duties and regulations in a particular country, the facilities of transportation, the probable demand for certain goods, the proper methods of packing, the value of the currency, the usual terms of credit, he writes to the Bureau of Foreign Commerce and usually gets a prompt and satisfactory response. If precise information is not at hand, the consular officers in the country in question are, in most cases, able to supply it and to do so with the least possible delay.

The Section of Foreign Markets of the Department of Agriculture has for its object the collection and diffusion of information as to openings abroad for the sale of our agricultural products, and it publishes special pamphlets on conditions in different countries affecting the American farmer. To obtain this information, it occasionally sends agents abroad, and is also furnished with many reports from the consular officers.

A NATIONAL MUSEUM OF INDUSTRIES

WHETHER the Bureau of Foreign Commerce remains, as now, a branch of the State Department or is merged, as is being suggested, into the Department of Commerce, it is obviously capable of great development, for the reason that the consular officers are constantly enlarging the scope of their services to trade. In the collection of samples of merchandise, of new inventions, of novelties in various lines of manufacture, the consuls are already showing much zeal, and if there were a depository in Washington where these samples could be arranged and exhibited, it would be possible to create a national museum of foreign industries which could be utilized with great benefit by manufacturers and importers from all parts of the country, free of cost.

Another valuable feature of the consular work which could be greatly extended is the collection of photographs, drawings, etc., of machinery, new processes of manufacture, engineering construction, architecture, etc. The views with which this article is illustrated are specimens of what is already being done by consuls in obtaining pictorial representations of interest to various forms of American industry. Some of them have not only appeared in *Consular Reports*, but have been reproduced in technical or trade journals.

Plans and drawings of important public works—such as docks, harbor improvements, sewerage, railroads, bridges, etc.—are constantly being received by the Bureau of Foreign Commerce, and are placed at the disposal of American firms for examination with the view to bidding for contracts.

At present the Bureau of Foreign Commerce has a clerical force of but half a dozen persons, and its quarters are restricted to two rooms in the State Department, so that it is obviously impossible for it to fully develop these features of its work, requiring much greater space and an adequate force of experts and trained employees. The nucleus, however, is there, and only the means are lacking to supplement the highly developed and efficient system of publishing *Consular Reports* with an unrivaled national collection of industrial and commercial exhibits.

THE PAYMENT OF CONSULS

THE pay of both diplomatic and consular officers is often inadequate; on the other hand, the incomes of some of the more important consular posts are relatively excessive. The salary of American ambassadors is $17,500, and they have to pay their own house rent as well as all living expenses. Great Britain pays her ambassador at Paris $45,000; at Berlin $40,000. The British ambassador to the United States receives $32,500 a year, with a spacious house owned by his Government, in which he lives free of rent, and a liberal allowance for entertaining. The French, German and Russian ambassadors are also provided with official residences in Washington, and receive sufficient compensation and allowances to enable them to live in proper style at no expense to themselves.

The same policy, with occasional lapses into extravagance, is found in the provision for the consular service. The European Governments maintain their consular services on a well-ordered and liberal basis. France has five grades of consular officers, receiving salaries ranging from $800 to $3,600, with allowances for traveling expenses, house and office rent and entertaining when necessary. British consuls average about $3,000 a year in salary, with allowances for office expenses, etc. Some are paid as much as $10,000 in salary alone, and the British consul-general at New York receives, besides $10,000 in salary, an office allowance of $9,000. At the age of seventy British consuls are retired with pensions. Many of our consular officers receive no salary at all, but are paid in fees, and there are no pensions. They have allowances for office rent and furniture, but none for traveling expenses, except in cases where they are especially detailed on public business, and all their entertaining—and in many instances it is purely official—must be paid for by themselves.

One of our most efficient officers—Consul-General Stowe at Capt Town—whose trade reports were widely appreciated, was recently compelled to resign because he could no longer afford to hold the position. Upon the other hand, our consul-general at Paris receives in salary and fees at least $14,000, the consul-general at London about $13,000, the consul-general at Berlin some $8,000, but even in these cases, the incomes are not large when compared with those of British consuls at similarly important posts. The consular office at Dawson City, in the Yukon region, pays the incumbent about $8,000, or the same as the office in Berlin which, commercially and industrially, is one of the most important.

THE COMMERCIAL VALUE OF THE METRIC SYSTEM

ANOTHER measure of pressing importance to the extension of our foreign trade is the adoption of the metric system. This system is today compulsory in twenty countries—Germany, Austria-Hungary, Belgium, Spain, France, Greece, Italy, Netherlands, Portugal, Roumania, Servia, Norway, Sweden, Switzerland, Argentine Republic, Brazil, Chile, Mexico, Peru and Venezuela. Our consular officers have frequently called attention to the serious disadvantages we labor under in trading with these countries, from the fact that we still cling to the clumsy and arbitrary nomenclature inherited from England, which is unintelligible to the great majority of foreign importers. For example, Consul Hill of Amsterdam says, in a recent report: "A firm in Holland received this week a cable offer from New York for 2,000 barrels of potatoes. As this was a new business, the question at once arose how many pounds there were in a barrel of potatoes—American pounds, too, as the Dutch pound differs from ours. A whole day was lost before the answer could be wired. Had the offer been made in kilograms, every business man in the commercial world from Vladivostok to Mauritius would have understood it instantly." Another instance is furnished by Consul-General Skinner of Marseilles, who states that repairs to an American ship were delayed two or three weeks in consequence of

the fact that her boilers had been built upon a scale of feet and inches, while the tubing available at Marseilles was manufactured according to the metric system. It was necessary to send to the United States for proper tubing, entailing heavy additional cost, besides the delay.

FOR COMPULSORY INDUSTRIAL INSURANCE

IN a recent decision the New York Court of Appeals admitted the right of a labor union to call its members out on strike from a non-union shop—largely on the ground that employers would not be legally responsible if a union man were injured through the carelessness of a non-union co-employee. The right of the union men to protect themselves was acknowledged, even though union men would no doubt agree that in most strikes against non-unionism, the matter of protection against injury is not a serious consideration. Shortly before the decision a bill was introduced in the Maryland Legislature providing for compulsory industrial insurance, after the European fashion, which should cover all such accidents as the New York decision considers potential and other disabilities beside. The New York decision will doubtless serve to encourage industrial insurance schemes, which have long been agitated; and the Maryland bill is a very decided step to establish one

The extent to which disabilities through injury in daily occupations exist is shown in a recent Massachusetts Labor Bulletin which shows that in a working population of 1,632,000 in the State, 2,900 persons are maimed or lame as a result of their daily labor. In 1900, about 1,500 persons were injured and fifty-two killed, the highest accident roll on record. This proportion, though probably somewhat higher in other States than in Massachusetts, is still pretty low; not more than one-tenth of one per cent.; and beneficial as compulsory industrial insurance might be, it is not surprising that it had been neglected up to the time of the Maryland bill, more especially in view of the many private insurance companies and mutual benefit associations actively at work.

THE DEVELOPMENT OF THE PENSION SYSTEM

ONE form of insurance, however, has recently begun to appeal most strongly to large industrial corporations,—namely, old age insurance in the form of pension systems. Within six months four great railroad companies have inaugurated such a system, every one characterized by such commendable features that the pensions given can be held by the recipients as annuities earned and not as charitable donations. One of the most notable industrial betterment institutions in the world is the little town of Port Sunlight in England, a model factory town maintained by a beneficent employer; but at Port Sunlight is a row of cottages where the superannuated working people live, in comfort to be sure, but segregated so distinctly that the pensioners' row takes on the appearance of an apotheosized poorhouse. There is no such character about the American schemes.

For some time Mr. Carnegie has conducted a pension system at his Pittsburg mills, and the Baltimore and Ohio Railroad, the Chicago, and Northwestern, the Grand Trunk, and the Illinois Central have had others, for the organization of railroads is such that pension plans fit them better than they could fit the organization of a factory. Lately the Lackawanna, the Reading, the Pennsylvania, and lastly the Metropolitan Street Railway of New York City have followed the earlier examples.

Under the various schemes employees who have served for a specified number of years, usually twenty-five, are pensioned at a specified age, usually sixty-five, at a rate based on the wages they have earned for the ten years previous to retirement. In some cases, as on the Grand Trunk, the pension fund is supported by equal contributions from employers and employees; in some, as on the B. & O., the employees support the fund; while on the Lackawanna, the company contributes the whole. Broadly speaking any one of the schemes is a form of self-insurance. Whether the workman finds a small amount deducted each week from his salary or whether he is simply aware that the company is putting away for him a small sum each week, he can feel that every cent that goes into the pension fund is money he has earned. And when the retirement age arrives he draws his weekly stipend in the consciousness that he is only reaping the benefits of earlier steadiness and faithfulness. Covering in some cases accidents as well as superannuation, these pension schemes, which will undoubtedly spread to the other great railroads, furnish the form of industrial insurance which best fits our democratic community.

AMERICAN ENGINEERS ABROAD

RECENTLY there foregathered in Philadelphia a quartet of men from the ends of the earth. One came back with

beri-beri, his adventurous usefulness over, but the three, more fortunate, had merely reported for new assignments; they were to stay at home a while and then put west by train and steamship or east by steamship and train for the outposts of civilization to take up new tasks. They were American engineers,—locomotive builders.

One had come from Wadi Halfa on the Nile, where he had equipped Lord Kitchener's military railroad with American rolling stock. He spoke of Soudanese convicts who wrestled with locomotive parts in 120° of African heat. That was Downey. Fisher had braved the plague in Talienwan and on the shore of the Golden Horn Bay had put up the engines with which the Russians now keep Manchuria open. Manchu coolies and Russian convicts had worked for him, and his thermometer had shown 40° below zero. The third was Vauclain, who had worked across the desert from Downey in Algeria and across China from Fisher in Upper Burma. He, too, was tanned by equatorial suns. Under him, for his experience was wide, had worked almost every sort of European laborer, and more kinds of yellow barbarians than it falls to the lot of most men to see. These engineers said, as they talked together, very little about their own exploits, which were many, but their comments on industrial conditions abroad were full of pith.

Downey had taken out the boxed parts of twelve locomotives to Alexandria, shipped them up to Luxor on a broad-guage road, from there to Shallal on the narrow guage, and thence to Wadi Halfa by felucca up the Nile. There he picked up workmen—chained gangs of convicts, most of them murderers, of whom their Egyptian guards stood in momentary terror—who by main strength hauled up the locomotive parts to the top of the bank. Then by the same kind of muscular effort each part was successively handled until the engines stood completed. American brains had guided every action. And when the first train ran out to a little desert station, and one of the Greeks with whom the Soudan towns are beginning to swarm had poked his head into the train and asked, "Is this the Yankee express?" Downey leaning out of the cab to hear what he said, caught the strains of a discordant Arab band across the desert playing Sousa's "Stars and Stripes."

Fisher had arrived at Newchwang only to hear that Talienwan, whence his duties called him, was under the curse of the bubonic plague. He possessed a family in a snug Philadelphia home, and first he thought of them. He cabled back to his firm, "Plague. Will you insure me?" Back came the answer, "Insured for five thousand dollars." Whereupon, his family now provided for, he piled into a little four-wheeled, high-windowed Chinese railway car for the stricken city. At King Chow, seven versts from Talienwan, he was crowded with many others into a stuffy little Chinese quarantine fort, where Christmas was celebrated by a general fumigation. At Talienwan his supplies came in through the surf in boats, and in the biting cold he had to set up engines on the shore as later in still colder weather he had to set up others at Vladivostok. The plague raged. Valuable locomotive parts were stolen. The convict and coolie laborers were so slow that three Americans could easily have done the work of ten of them. The thermometer went at times to 40° below, and the wind blew in a clean sweep across the bay. All the tools had to be heated at a fire before they could be handled. But, notwithstanding, the engines were ready in time. Just as the heroic engineer had risked his life in a town where disease was so rife that rows of houses had to be burned to the ground to wipe out contagion, in the same spirit he faced his engineering problems, and finished his task before the time assigned by the Russian Government.

He found the Chinese laborers, despite their slowness, industrious and quick to learn, but he saw the concrete evidence of Russia's grasp in Northern China in the fact that every gang of workmen had a Russian "boss."

Vauclain had come home with a keen desire to see American workmen once more. His native and colonial French assistants in Algeria had been deliberate and slow; those in Spain had suffered from the general unprogressiveness of the country—they hauled their supplies in bullock carts, and when they wished, well, for instance to cut a thread on a pipe, they would first smoke a cigarette and ponder, and then laboriously cut the thread with a cold chisel. Frenchmen, he found, could be rushed in spurts even to the American pace; but they lacked American spontaneity. The Germans plodded faithfully along, but when the little push cart came around at eight o'clock with beer and bread and cheese, and later in the day with more beer, none were averse to stopping work for a time. Nor could they be hurried.

In Burma it had been 115° in the shade. To keep the work of the natives up to schedule it was sometimes necessary to work in thirty-

six hour stretches. One day a finished engine had been run out for its trial. A brass side rod balked. Refusing to go back and put in another, Vauclain had pulled the rod off, got some paper from a telegraph office and a nut from the back of the tender, put the rod on again, and continued. "A day saved, thank Heaven," he had said. "A day, a day" wondered the Eurasians. "What is a day, that this American should hurry so?"

But hurry he did. The engines he built were ready on time, and hauled up to Maymyo the steel for the famous Gokteik Viaduct.

Moreover, like Engineer Turk, who built the viaduct, he acquired a profound respect for the American missionaries in Burma, and more especially for "the practical missionary" as one of them is called. For one day a native of the Karens tribe in Northern Burma asked permission to run a "Yankee" engine, and his skill was so notable that Vauclain had asked him questions. "I am running an engine," said the native, "and am, sir, the product of Reverend Smith's mission."

Each one of these engineers, in short, while carrying the American invasion to the very front edge of civilization, found the trail of Americanism already before them, for Sousa's march tune had preceded Downey into the Soudan, a lonely American trader had settled far up in Manchuria where Fisher's locomotives were going, and Vauclain had met the "product" of an American missionary. But behind their locomotives a wave of Americanism has already begun to swell that will have its most beneficial effect if it succeeds in changing the labor conditions that these plucky engineers contended with. The "Reverend Smith" seems to have had some success in this direction already.

THE NEW PROCESS OF DRAWING HOT WATER FROM WELLS

JUST as the people of Old New England depended upon water of various cold or luke-warm temperatures drawn from springs or wells, the people of many Western towns are drawing hot water from the ground for common uses. At Boise, Idaho, hot water runs directly from wells to the homes and offices of the city. The municipal government itself does not own its water supply, but is dependent on two different companies, one of which, "The Artesian Hot and Cold Water Company," owns and controls the supply of natural hot water.

In 1890 the company drove three wells; two four hundred and fifty feet deep from which every twenty-four hours gushes forth 800,000 gallons of water at a temperature of 171° Fahrenheit. The wells are two miles from the city and about seven miles of piping bring the natural reservoir of hot water to eleven houses and thirteen large business blocks and public buildings in the city, where it is conveniently used both for heating and for domestic purposes. During the summer when the water is not needed for heating the surplus supply is used for sprinkling the street.

For inland bathing, also, the unusual water supply serves its purpose. Some years ago the company built and furnished most elaborately a natatorium with plunges sixty by one hundred feet, varying in depth from four to fifteen feet. Here one may have either steam, shower, hot or cold tub or plunge bath, the water being given a most pleasant quality by the natural heat.

The State penitentiary, which is situated at Boise, has a well which supplies the entire institution with plenty of hot water for heating and domestic purposes. It is supposed that the entire supply, in as far as can be ascertained, is now being used.

About forty miles from here is a certain place where on one side of a large rock the water boils out at a temperature hot enough to boil eggs in, and directly on the opposite side of the rock is a typical mountain spring from which flows freely the icy cold water only to be found at such mountain springs.

The story is told that one may sit with hook and line and catch the trout from the pool formed by the spring of cold water and immediately, without changing his position, swing his delicious catch over into the hot pool where it is quickly cooked.

If power can be obtained through this source it would be of unlimited value, and as it is the supply furnishes the town with unusual advantages. And Boise furnishes only one example of this very interesting phenomenon. The subject has already been considered in a recent number of the WORLD'S WORK in connection with the interesting experiments which have been made with the idea of harnessing the heat of the earth to the belts of factories. It does not seem likely that Yankee ingenuity will allow so much potential force to lie idle for a greatly longer time.

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The March of Events

ON the eve of the coronation of the King of England came the long-hoped-for and welcome end of the Boer War; and of all men living and of all nations, King Edward and the English had the best reason for a glad June.

The ending of the war is an event of incalculable benefit to the whole world. England and the British Empire (Ireland to some extent excepted) have had such a period of jubilation as no English subject now living had ever before taken part in. The rejoicing in London was not such a scene as the solemn demonstration at Washington at the close of our Civil War; for that was an occasion the like of which cannot be found in all history. But the English Government and the English people feel the unspeakable relief that comes from the laying down of the long-borne and heavy burden; for it is not so much a brilliant victory as it is an infinite relief.

But a victory of course it is; and it is a victory that was inevitable from the first. Yet it was not a decisive, dramatic victory, but a cessation of hostilities achieved by a tedious wearing out of the enemy. England gets relief, but she gets a small measure of military glory.

But England gets what she fought for—British colonies where the Boer republics were and British control over what was Boer South Africa. A British colonial administration will be dominant in this region and the national life of the Boers ends. They become British subjects. Wisely or unwisely begun, it was for this that the war was fought. The Empire gains area and it has probably also gained strength. The cost was enormous, but the long struggle stirred the loyalty of the great self-governing colonies and thus knit the Empire more closely together.

The conditions of the surrender include the essential principle for which England fought—sovereignty over the late Boer republics, which now become British colonies. But they include more generous terms to the Boers than were once offered or contemplated in the English programme. No burgher shall be punished for acts of recognized warfare; the Dutch language will be allowed in court and school; civil government shall be set up as soon as practicable "leading up to self-government" as a British colony; no special tax is to be levied to defray the expenses of the war; and $30,000,000 will be provided (partly as payment for war

losses and partly as a loan) for starting the needy people again in their agricultural pursuits. It is a victory for England but an honorable condition for the Boers to accept. The fairness of the agreement will be tested when the definite task of establishing government shall be undertaken. The English cannot afford, for the future of the Empire, to be ungenerous to so brave a people. The task of making them in real truth good British subjects is so difficult that it cannot be done except by the greatest generosity. British character will now be put to trial as the British army has hitherto been.

ENGLAND WHEN THE KING IS CROWNED

SWIFTLY following peace throughout his world-wide Empire comes the crowning of the King, while the English are in a fit mood of chastened jubilation. The splendid ceremony pleases their conservative habit of mind and makes a pageant that impresses the English in every land. It is not a royal ceremony of a sort with the crowning of the Czar; for, in spite of its mediæval forms, one is the crowning of a constitutional monarch, who is himself hardly more than a symbol, and the other was the crowning of a king who keeps the substance as well as the show of kingship.

In spite of recent disturbances of mind by problems of trade and by the burden of war, the English King stands on the most commanding eminence that an hereditary ruler ever looked forth from. His people hold the present as no other people hold it; and the future belongs to men of their race and language and to institutions that sprung from their civilization.

If the memory glances back to the reign of the last Edward and compares his England with the Spain of Charles V, and then contrasts those two countries today, the strength of English character and the value of English institutions appear as the foremost forces in history. The growth and greatness of England have taken place during the period of colonization in the world's history. By her aptitude for seamanship and for representative govenment, she secured the first place among nations during this great period, and her insular position during the Napoleonic wars enabled her likewise to be first in economic development; and for these reasons Edward VII is the foremost sovereign in the world. The great pageant of the coronation, as a symbolic scene, indicates the highest point to which any nation has attained in this period of the world's history. Ireland is one cloud upon this brilliancy, but Ireland is now accepted by England as a British ailment which must be endured; South Africa is yet another grave problem, but the restoration of order and the rapid production of wealth will attract a larger population thither and these British provinces will become a portion of the Empire, at least as secure, and far more profitable than India or Egypt. Elsewhere, in Canada, Australia, New Zealand, there is enthusiastic loyalty.

The problems ahead for British supremacy are the wealth of the United States and the power of Russia. Meantime the obvious task before Great Britain in the first half of the twentieth century is to establish Imperial Federation. The conference, immediately after the coronation, at which delegates from the colonies meet the British Cabinet, is a sign that Mr. Chamberlain's programme broadens and commends itself to them. The Government must not lose the favorable moment while the enthusiasm over the late war lasts, for now that peace is come distrust and jealousy may be revived and every year, although their loyal sentiments may seem to remain unchanged, Canadians, Australians and New Zealanders are becoming more and more different from Englishmen, and in the course of time these differences will count.

The Imperial purposes of Great Britain have their gravest problems at home, in the growing socialistic tendencies as displayed by the increasing strength of Trades Unionism and of Municipal Socialism. Nothing is more familiar than the cry that England cannot long compete in the world's markets because labor unions are in control, and will not permit British manufacturers to underbid their rivals. The municipal ownership of public utilities is equally marked.

The reign of Edward VII is a very interesting time; these two great movements of Imperialism and Socialism, both rapidly growing, are likely to come into collision, and their struggle will constitute an exciting chapter in the history of this century.

THE CORONATION AS SEEN FROM THE REAL AMERICA

WE properly send a special embassy to show our respect for King Edward at his coronation; many Americans witness the spectacle—indeed a great throng fills London to see it; one citizen of New York (if the newspaper despatches be correct) has presented the King with a tapestry of great beauty and value; and the sincerest congratulations go out from every American community to our kin across the sea. There is no make-believe in the universal expression of good-will.

Yet no Englishman who has the usual insular state of mind could ever be made to understand the American indifference to the King himself and to the coronation—except as an unusual spectacle. It is an indifference that even a loyal Canadian can hardly comprehend. The first hundred men that you might meet in Michigan or in Kansas or in Indiana or in any of our great mid-continent States (and these are the dominant Americans) look upon the coronation and upon the King himself as a hollow show. Such a man could no more regard the ancient ceremony seriously than he could regard seriously a Roman chariot-race in a circus. He would gladly pay an admission fee to see it, as he would to see any other pageant; but it would call up no reverential feeling in him. He turns the leaves of the magazines that contain portraits of the royal family with some weariness; and not one such man in twenty even reads the newspaper reports of the ceremony. Considered seriously, royalty is offensive, and most Americans regard kings with a feeling of personal pity.

This indifference to royalty (not to call it contempt) does not come from a lack of historical knowledge nor a lack of historical perspective. It is not incompatible with a very great reverence for English institutions and for their long continuity. The simple truth is that a king, most of all an English king, seems an utterly useless piece of governmental or social machinery—a thing so obsolete as to be absurd. Yet no human task is more difficult than the task would be of making this feeling of the first hundred men that you might meet in Chicago plain to the first hundred Englishmen that you might meet in London.

MR. ROOSEVELT'S INFLUENCE ON INTERNATIONAL RELATIONS

IT is now difficult to recall the feigned or ignorant fear of a group of political journals that shuddered when Mr. Roosevelt became President lest he should go into the White House with boots and spurs and spend his time looking about the world for a fight; for no recent President has done so much within so short a time to link the Governments of Europe to us in amicable bonds. How completely he won for himself and for the country the real if somewhat spectacular friendship of the Kaiser is shown by the Kaiser's offer of a statue of Frederick the Great to be placed at Washington. Since Washington is the last place in the world where statues of monarchs are expected to be found, the President has provoked some criticism by accepting it. Any man who knows the literature of our Revolutionary period may guess what an outcry would have been raised by Jefferson, for example, if such an offer had been made in his time. But kings seem harmless now, at least to the Republic—certainly a king so long dead is harmless; and nine Americans out of ten think of Frederick less as a king than as one of Carlyle's Heroes. Republican ways are now so well established that we may without violence to our principles put up the image even of a king if we choose—or we might without silliness or affectation politely have said that royal figures do not become the avenues and circles of the capital of a republic. It is a matter of taste, almost of whim, and of little consequence as a declaration of principle. But the point is that the Emperor of Germany made the offer in sincere friendliness, which we should be ungracious if we did not appreciate.

The President so bore himself and so directed the official reception of the mission from the French Government that came to participate in the unveiling of the statue of Rochambeau as to win, in the same way the cordial good will of the French. His promptness to provide relief for the victims of the volcanic eruption, and many such actions, whether spontaneous or merely formal, have all brought the Governments of other countries to a more intimate knowledge of our own and to a greater respect for it than they had before had. As an active influence for inter-

national cordiality the President must be regarded as among the most effective peace-keepers of the time. He is indeed something more than a mere keeper of the peace. He is a positive promoter of international friendliness.

THE IRREPRESSIBLE PHILIPPINE QUESTION

OUR policy in the Philippines has in all essential particulars been determined for a long time. Mr. McKinley and Mr. Roosevelt, the Republican majority in both branches of Congress and some Democrats have been in substantial agreement from the beginning; and, every time the subject has been voted upon by the people, there have been decided majorities in favor of the policy of the Administration. At the election of members of Congress in Oregon on June 2d, for instance, anti-Imperialist candidates were roundly defeated. No great public question, therefore, seems to be more decisively settled.

Yet the long and very able debate in the Senate on the bill to establish civil government in the islands, and the military scandals and the investigation of them—and more than all the lack of any burning party question in our present political life—have kept the subject at white heat. By far the most noteworthy recent utterance was the President's Memorial-Day address, which, by the way, was perhaps the best address that Mr. Roosevelt has ever delivered. The most noteworthy deliverance on the other side of the question (in favor of the immediate giving of independence to the Filipinos) was Senator Hoar's carefully prepared speech delivered on May 22d. THE WORLD'S WORK has never before republished addresses that had been already published and perhaps it never will again; but these two speeches contain all that has been said or can be said on both sides of the controversy, in the most authoritative way. Indeed, no man need read more (and what weary deliverances there have been and will be!) to know the whole argument.

The Lodge Philippine bill, after a long and very interesting debate, was passed by the Senate on June 3d, by a party vote, all the Republican Senators voting for it, except Senators Hoar, Mason and Wellington, and all the Democrats against it—48 to 30. The bill confirms the creation of the Philippine Commission and gives to the inhabitants of the islands the right of life, liberty, and property and provides for a continuation of the Commission's work in establishing municipal and provisional governments. Whenever the insurrection ends, the Commission is to take a census and to report "whether or not all or certain of the Philippine islands are capable, fit, and ready for the establishment of a permanent, popular, representative government." The Commission is to make rules for the sale or the lease of public lands, under certain restrictions and subject to the approval of the President and Congress; and the bill provides for the coinage of an American-Filipino silver dollar.

The House bill differs from this bill that the Senate has passed by providing for the gold standard at once, by directing a census to be taken immediately and by providing for the election of a popular assembly. Neither bill makes promise of independence, but both look toward it at last. By the time this paragraph reaches the reader a conference compromise of these two bills may have become law.

It is clear that the Democrats in this year's Congressional campaign will make their principal appeal to the country for a definite declaration of Philippine independence; and the controversy will narrow down to this question—Shall we or shall we not make the Filipinos such a definite promise as we made the Cubans?

SHALL WE PROMISE THE FILIPINOS INDEPENDENCE?

IF self-government were now or at any early time possible or practicable in the Philippines, there could be no objection to such a promise of independence as was made to Cuba. No considerable or respectable body of opinion is in favor of our permanent occupation of the islands if they can become self-governing. But the objection which practical men who have long studied the problem in the archipelago make to such a promise now is this: the time when self-government will be possible is so remote that no date can be set, and a promise made now would for that reason be absurd. Independence may be granted, moreover, to some of the islands long before it can be granted to others. Besides, it is absurd to talk about self-government till insurrection

ceases; or, even if there were no longer insurrection against the United States and we should withdraw, the present generation of agitators and adventurers would prevent further work toward any real self-government.

The conviction of practical men who have studied the people by residence and work with them is that self-government would be delayed and our future administrators would be embarrassed by general promises before it can be known when conditions will permit them to be fulfilled. The way to bring about self-government is to work toward it and not to encourage the native agitators by prematurely making promises which they would misconstrue. Mr. James A. Le Roy, who has been in the service of the Commission in the islands since it was appointed, expresses in this magazine the practical view taken of this subject by the men who have most closely studied it; and his opinions coincide with Governor Taft's, who recently expressed the same general conclusion in *The Outlook*.

THE LARGE MEANING OF CUBAN FREEDOM

IT is not often that a new Government comes into existence and a new nation takes its place in the world. The very infrequency of such an event, then, was enough to make the beginning of the Cuban Republic impressive. The emotions that the occasion naturally stirred, especially in the old patriots, were such as few men ever feel and none ever feels but once. They had spent their lives in fighting for freedom which came at last through the generosity of the United States. According to our promise, on May 20th, the new Government under President Palma began, and began hopefully, although it has grave problems before it,—none so grave, however, as our own bankrupt Republic faced in its early days.

The gravest problem is financial. The treasury has only a small sum and the chief industries of the island are in such depression that very careful management will be required. But the island has the advantage of much money and administrative skill that have been spent during the period of control by the United States. Its administrative, its sanitary and its educational condition is incomparably better than it ever was before; and if the new Government can successfully solve its financial problems all classes of the population, Cubans and Spaniards alike, will be welded together as they never were during the centuries of Spanish domination.

Great events come so noiselessly that the world, busy as it now is with its industrial problems, hardly takes note of them. But the influence, not on Cuba only but especially on the Great Powers, of the gift of one people's freedom by another people must be regarded as one of the most cheerful events of our time. The United States has demonstrated, against the original expectation of most Governments, that it has a sincere and unselfish interest in the spread of republican principles; and that the true conception of a colony is of a people who are in training for self-government.

And the gift of freedom to Cuba will have a lasting influence, not only on the regard of other nations for us but on our own character and policy as well. In the face of this precedent, we are never likely to hold any people in subjugation—the very thought is impossible; and the Philippine Islands as soon as they make self-government practicable, will become self-governing. It would be well if those who cry out for the hastening of this inevitable result were to help in persuading the Philippine peoples to follow the example of the Cubans by disarming their brigands and preparing for an orderly democracy.

Nor is the effect of the freedom of Cuba on our own policy and on the esteem on which the United States is held its only effect. The old Governments that have inherited policies of repression and oppression will find that these policies are out of date in a world where one republic begins its free existence as the gift of another republic. For its own sake then, but also for the larger reason of the world-wide good influence of its beginning may the Cuban Republic have a steady growth and perpetuity!

We shall not have done our duty to the new Republic till we have made its economic chance of life better by opening our markets more generously to its principal products.

GENERAL WOOD'S UNIQUE ACHIEVEMENT

IT is not often that a public task presents itself that is so definite and limited that the man who begins it can finish it. For the public service in most of its forms is continuous. One man may spend his time or

his life-time at his duties. Then his successor takes up the same duties; and thus almost every part of the service goes on endlessly. The infrequency with which a man may work out a finished result is the most dissatisfying fact about such a career. Nor, when a definite and limited task does present itself, does it often happen that the man who begins it is permitted to finish it.

Very happy, therefore, was General Leonard Wood in the duty that fell to him in Cuba. He went there as Colonel of the regiment that was popularly known as the Rough Riders, of which Mr. Roosevelt was then Lieutenant-Colonel. He saw military service. Then he was, after the war, in command at Santiago, which he renovated and made clean and healthful. No sooner had he done this than he became Governor-General of the island. He cleansed Havana. He set Cuba in order as a commander, as an engineer, as an administrator. Few such thorough and excellent pieces of work stand to men's credit in the whole history of administration. A long-harried, impoverished, turbulent community of mixed races was set forward in ways of peace and industry. A school-system was begun. Radical sanitary reforms were made. The worst pest-hole of the western hemisphere became a health-resort. Peace came to Cuba for the first time in the memory of the oldest men. When the island was turned over to the new Government and General Wood steamed out of Havana, he left behind him one of the most gratifying pieces of completed public work that can be found in the annals of government. He goes back (so it is reported) into the military service, having refused opportunities for very profitable private work. But he has a monument of peaceful work such as few soldiers have built for themselves—a monument to his character and executive skill in doing a very delicate task—the remaking of Cuba for the Cubans.

THE INSTITUTION-BUILDING IMPULSE

NOR is General Wood alone in having refused lucrative private engagements because he preferred the public service. There are few good public servants who have not had similar opportunities and shown the same spirit. It is not only officers of the Army and of the Navy (Rear-Admiral Sampson, for example, left a property so small that it would not match the savings of a clerk or a laborer) who take such pride in their professions as to be as free from the taint of commercialism as men were in the simpler and poorer days of the Republic; but such men are found —and found in great numbers—in every branch of the service. The great scientific departments at Washington are made up of them.

The truth is, we hear too much about the commercialization of the professions. There are men who vulgarize them all—no doubt,—and who sell their craft-right for a mess of millions, for there have always been such men. But there is another tendency of our time that is far stronger than the tendency to get wealth: it is the tendency to establish, to build, and to maintain institutions—institutions of any useful and honorable kind. Men give themselves in the most unselfish way to build up colleges and universities, hospitals, museums, clubs, associations for the advancement of trades and professions, libraries,—there is no end of the list. Men labor to turn their business into institutions. Many founders of great commercial houses work for their honorable perpetuity. Many manufacturers plan their factories so as to give them an institutional character and value. The naturally constructive tendency of an active people is towards institution-building. Strong men in almost every department of work show such a tendency often as a dominant trait of character; and this is a stronger motive than the mere wish to be rich. The rich man who stands alone, who has not established something, who is not identified with some great institution, commercial or public, is not envied. He is more likely to be pitied.

Now every great institution, whether it be a bank or a university, is built and maintained by the labor of self-sacrificing men who have freely given themselves to it. The benefactions of the rich are an incident in the building of colleges and the like beside the life-long devotion of those who have been moved by the institution-building impulse. When a strong man contributes his labor to the development of the Navy, or of the Army, or of the Agricultural Department, or of a great library, or of a university, or of any noble art or craft, or to the establishment of a

model factory, or of a publishing house, or of a great organ of opinion—any worthy institution whether it be public or private—it is not often true that sheer personal gain proves to be the dominant motive of his work.

It is well to remember the unparalleled institutional growth of our society before we draw sweeping conclusions about the commercialization of modern life. There is no positive moral quality either in poverty or in wealth. There was once an effort (based on a wretched theology) to make poverty honorable. But poverty is in itself neither honorable nor dishonorable—except when it implies incompetence. Nor is wealth, except when it was ill-got or is ill-used. But the test of honor is in the application of effort or of wealth; and society applies the test now as severely as it ever applied it. A man that adds to the value or to the dignity or to the permanence of an institution, a craft, a profession—the man who in some way gives an institutional value to his own work—he it is that is held in honor among us as no other man is.

FORMULATING PARTY ISSUES

THE State conventions are making political platforms—a kind of literature in which novelty is hardly expected. A good platform, in fact, is one that says little and that avoids "reiterating" stale eloquence about past controversies. It is an interesting if somewhat depressing fact, by the way, that a platform seldom "repeats": it always "reiterates." It seldom contains a short sentence. It seldom says anything in the language and in the manner of ordinary contemporaneous speech. It has an oratorical, unreal, and hollow style and vocabulary of its own. When a man sits down to write one, he writes it as he writes nothing else under heaven, neither a speech, nor an editorial, nor a letter, nor a prospectus, nor a will. He "reiterates" and "affirms" things in long, cumulative sentences or in ponderous antitheses which strain the ear if they do not tax the mind. This kind of composition lacks simplicity and frankness, and nobody takes its bombast very seriously. If some man in practical politics wishes to make a name for himself let him try the interesting experiment of writing a party platform with brevity and simplicity; and let him leave out the customary stuff about labor and capital, and he may possibly achieve the immortality that he will deserve.

But the Ohio Republican platform contained two declarations that have some contemporary significance: it stood by the Administration's Philippine policy, and the President's and the country's demand for trade reciprocity with Cuba—this latter somewhat vaguely. On this subject the Kansas Republican platform was much more direct and frank. On the other hand the Tennessee Democratic platform contains a denunciation of our Philippine policy. So also the Indiana Democratic platform.

So far the best signs point to three conclusions as almost certain—(1) The Republicans favor a tariff concession to Cuba, and, this done, they hope for quiet on the general tariff question; (2) they will approve the Administration's Philippine policy, and the Democrats will oppose it and demand Philippine independence—this in spite of some exceptions, such as Senator Hoar on the Republican side and Senator Morgan on the Democratic side, who, on this question differ with their parties; (3) the Republican present preference for the Presidency in 1904 is Mr. Roosevelt. Unless the Democrats insist more earnestly than they now seem likely to insist on a radical revision of the tariff, the Philippine question will be the file that the campaign orators this summer will most strenuously gnaw.

AN EXPERIMENT AT REFORMING TAMMANY

MR. LEWIS NIXON, who was appointed by Richard Croker to succeed himself as Boss of Tammany (that is to say, as Chairman of the Finance Committee), being an honest man who has an honest occupation, resigned to save his character; and he thereby did himself and the public a great service. The whole matter in a nutshell is this—Tammany is a gang organized for public plunder, and but for the plunder it would fall to pieces. But it has successfully kept alive the fiction that it is the Democratic party in New York City; and to the extent to which the Democratic party has accepted this fiction it has suffered loss of character and standing. Tammany outdid itself in encouraging vice for its own profit during the last years of its recent rule and it so offended even the some-

what sluggish civic spirit of New York City that it was overthrown in spite of its nomination of so clean a man as Mr. Edward M. Shepard for Mayor. Having need to assume respectability, Boss Croker persuaded Mr. Nixon to succeed him, or to seem to succeed him. And Mr. Nixon's friends wondered how long it would be before he found out what they knew—that he could no more reform Tammany than he could teach cannibals the pleasures of a vegetarian diet. In less than six months he resigned because, "I cannot retain my self-respect and the leadership of the organization at one and the same time," and because "nearly all my important acts as leader had to be viséd by Mr. Croker."

In the last analysis, of course the trouble was or would have become a trouble about the revenues of the organization. Before the election last year the Tammany circular soliciting campaign contributions from its dupes or from them that feared it contained this sentence: "Checks may be made payable to Richard Croker, chariman of the finance committee." When Croker was asked several years ago by the Mazet committee of investigation if he rendered any account of the money received and disbursed by him as chairman of the finance committee, he replied, "No, sir. The finance committee very seldom has a meeting." Mr. Nixon, therefore, has saved himself from the doom that this system has for any honest man who becomes Boss. The interesting question is, Will the Democratic party continue to accept the fiction that Tammany is a Democratic organization?

FRANCE AND THE UNITED STATES

VERY happy and appropriate was the interchange of international appreciation between France and the United States at the unveiling in Washington of a statue of Rochambeau. The great American public with its school-history knowledge of our Revolution knows that Rochambeau brought us very welcome aid; but he did more than that. It was to the French that we owed our success in that great struggle which changed the history of the world; and the great and friendly leader of our French allies has an immortal place in American history. The welcome given to the distinguished representatives of the French people, including General Brugere and descendants of both Rochambeau and Lafayette was properly as hearty as the welcome that we ever gave to visitors to our shores. On the occasion of their visit, as on many other occasions, we had occasion, too, to be grateful to M. Cambon, the French Ambassador at Washington, who (it will not be forgotten) did us great service at the conclusion of the late war with Spain. The ancient friendship between France and the United States, therefore, continues not simply negatively but with mutual appreciation.

We are not her rivals. She does not threaten to dispute the Monroe Doctrine, her manufactures and agricultural products do not struggle for the same markets with ours, for her products supplement ours. France is our oldest friend in fact, not only by reason of our commercial and political relations but also because of our intellectual and æsthetic debt to her. It is she that brings us into contact with Latin habits of thought and clearness of vision.

Three years ago France seemed on the verge of disaster over the Dreyfus affair; but in those three years the Government has succeeded in raising her from a position of internal danger to a position of high respect among the nations. The credit is in part due to President Loubet, whose uprightness, honesty, and political skill have stood France in good stead, but still more to M. Waldeck-Rousseau, who became premier when there were not only fears of the Socialists and social disorder, but also of Bonapartists, Orleanists, Legitimists and all kinds of political disturbance. Waldeck-Rousseau proved himself the ablest French statesman since Gambetta. He gathered about him a wise Cabinet, among them Gallifet, who picked up the pieces of the army's honor and put them together; Millerand, who, as Minister of Commerce, showed that a Socialist can be sagacious and prudent, and converted many of the more extreme Socialists into moderate Radicals, and Delcassé, who, as Minister of Foreign Affairs, compelled the Grand Turk to behave properly and turned the enmity of Italy into friendship. One of the good deeds of the Waldeck-Rousseau ministry was to secure the passage of the law which compelled religious corporations to submit to civil jurisdiction.

The visit of our French guests here and the contemporaneous visit of President Loubet to Russia—France clasping with one hand the Czar and with the other our English-speaking Republic—looked at first glance like a political paradox. But a moment's reflection shows the true significance of the contemporaneous visits, that nations may and ought to be friends, despite radical differences of race, experience and forms of government.

THE SPANISH KINGDOM TODAY

THE familiar words "Latin decadence" at once bring Spain first to the mind, for both Italy and France show a vigor, which, if not guided in the same direction as the vigor of the United States or of Germany, cannot be called degenerate. But it is fairer to compare the present condition of Spain with her condition fifty years ago than with the present condition of the Great Powers. In the middle of the nineteenth century Spain to a great extent was isolated from the rest of Europe. She was torn by civil dissensions and threatened civil war, the people were grossly ignorant and the Queen was notoriously dissolute. Today the Crown, thanks to the virtues of the father and the mother of the young King, seems likely to be a centre of political strength to the country. The Queen Regent has been a good woman and a wise sovereign. She has impressed her son with the modern conception that kingcraft is the most laborious and exacting of all trades; and, though he does not seem to be a youth of especially strong character, he is patriotic and well-educated, and the scenes at his coming of age show that the people look upon him with hope and confidence. He is only sixteen years old, and for some years still he must rely wholly upon his counselors, but the blood of the Cid and of Henry of Navarre flows in his veins, and he has many reasons to do well, besides the abundant warning in his own House of Bourbon that the tenure of a king is very insecure.

The immediate problems before Spain are the ecclesiastical system, finance and anarchy. Spanish ecclesiastics labor, not for the good of the people or the honor of Christianity, but for what they believe to be the advantage of the Church. Traditions inherited from the time when Church and State were in a death grapple with the Moors have been preserved intact; new ideas are deemed of the devil and freethought is hindered and prevented in every way possible. The natural harvest from this method is superstitious ignorance or vulgar skepticism. People of liberal minds are aware of this evil, as may be seen by the novels of Galdos who has been profoundly impressed by the deadly effect of religious bigotry in his country. The Government has tried to do something; with much circumspection and hesitation it procured the passage of a law similar to that passed in France a year or two ago, requiring religious corporations to submit themselves in certain respects to civil authority. This law aroused great opposition from the Church and also from the Conservatives, and last autumn the Government granted six months' grace. It cannot be determined yet whether that grace was a sign of backing down or mere temporary leniency. The law itself, however, is evidence that the Liberal party is alive to the necessity of curtailing the powers of ecclesiastics.

Spanish finances are on a very unsatisfactory basis. The Bank of Spain has in circulation some three hundred and fifty millions of what is practically paper money. This circulation has increased from about one hundred and fifty millions in 1890 and from about one hundred and ninety millions in 1894, and there has been a corresponding depreciation in its value and a corresponding rise in the premium on gold. This depreciated currency has had its inevitable ill effect upon the whole business of the country. The proper remedy is to retire part of the paper money in circulation, but to do that requires hard cash, and Spanish financiers are at a loss how to raise it. The State owes the bank about two hundred millions of dollars, and if this sum were paid back to the bank, the bank could retire a great part of its paper money, but the State treasury is rather empty and Spain is averse to a foreign loan, and taxation is high enough already. The first step is to acknowledge the evil, and some remedy will no doubt be devised.

Anarchy can be cured only by the removal of poverty and ignorance. In the meantime it is accepted as one of the hazards of royalty. The anarchists of Barcelona seem to be the pupils of French and Italian instructors

rather than anarchists born, although Catalans are notoriously unsympathetic with law and order. On the whole the present reign opens with better hopes than Spain has enjoyed for two hundred years—the better, too, because her colonial tasks, to which she was not equal, are no longer on her hands and all her statesmanship can be turned to the solution of problems at home.

THE COST OF THE BOER WAR

THE staggering cost of the war to England is indicated by these facts: The British lost 21,966 men by death, including 1,069 officers; more than 9,000 were captured or are missing; and nearly 71,000 were sent home as invalids. Two-thirds of the dead succumbed to disease. From the beginning to the end the British had a total of 280,000 men in the field. The cost in money to the English is very nearly if not quite a billion dolars.

The cost to the Boers in men and money is not known. Their army was small—probably never more than 50,000 men; nor was their treasure great. But they have lost all they had.

England can carry this financial burden with the addition that will be required to restock the Boer farms. But it is not a small burden, even for the richest country in the world.

If these facts give some measure of the prodigious cost of this long struggle, which lasted from October 11, 1899 till May 31, 1902—two years and nearly eight months—there are two great lessons for the English and for all the world, to be put down to the credit of the war. The English army is not the model military instrument that it was supposed to be; and successful fighting in a large hostile territory is an almost impossible undertaking, even under modern conditions, if the enemy be courageous and persistent. This war, if any war can, will surely act as a strong deterrent of wars. The military lessons which have been learned in South Africa must necessarily strengthen the peace that now reigns almost over the whole globe.

Lord Kitchener has received high titled honors and a grant of a quarter of a million dollars. He is the English hero. But it can hardly be said that the English have won any great degree of military renown. The scouting Boer Generals showed a kind and a degree of skill that will most interest the purely military historian.

ILLUSTRATIVE OF THE ENGLISH DIPLOMATIC SERVICE

IT was very unusual praise that Lord Salisbury gave Lord Pauncefote, the late British Ambassador at Washington, whose death was an international loss, when he said that he "had done more than any other one man to cement the union of the two great Anglo-Saxon countries—which is one of the healthiest and most promising indications of the time." His Government, to our satisfaction, retained him in its diplomatic service several years after he had reached the usual age of retirement. He negotiated an uncommon number of important American-British treaties, during his thirteen years of residence at Washington, covering such subjects as the Bering Sea controversy, the Venezuelan Boundary dispute, a permanent tribunal of arbitration which was defeated in the Senate, and the isthmian canal treaty.

His successor, the Hon. Michael Henry Herbert, has had an unusual career even for a British diplomatist. See how wide his experience has been from the mere enumeration of the posts that he has filled during the last fourteen years, and he is now only forty-five years old. He was chargé d'affaires at Washington from 1888 to 1889. He was secretary to the legation at Washington from 1892 to 1893; at The Hague, 1893 to 1894; Constantinople, 1894 to 1897; Rome, 1897 to 1898. In 1898 he was appointed secretary to the British embassy at Paris; and he now comes as ambassador to the United States, the more appropriately because of his previous service there and because also of his marriage to an American lady, a daughter of Mr. R. T. Wilson, of New York. The English diplomatic service gives a man a chance for a career. We yet think that our ministers and ambassadors must belong to the political party of the Administration. Who in the United States knows to which English party Lord Pauncefote belonged or Mr. Herbert belongs?

BRITISH MUNICIPAL SOCIALISM

HOW very strong the tendency is towards that form of municipal activity in Great Britain which is regarded by many as socialistic, is shown by the most interesting consular report of the year, which is on this subject, by our consul at Liverpool, Mr. Boyle. He has collected facts which show an extension of municipal activity beside which even Chicago's recent vote for municipal ownership of gas and electric lighting plants and ultimately of street railways, and all other such movements in the West, are but a very short step toward the public control of public utilities.

Nine hundred and thirty-one British municipalities own their water-works; 99 their street railways; 181 supply electricity; and 240 conduct gas works,—so many, indeed, that about half the gas users in England consume municipal gas. In the United States, out of the 1,500 cities and towns of over 3,000 population, only 750 own their water-works; 200 own electric lighting plants; and 20 their gas works. To emphasize the discrepancy, Great Britain, in addition to owning the telegraph and planning to absorb the telephone lines, has municipalities that have shops and houses to rent, a municipal auditorium where theatrical and musical entertainments are given, a municipal rabbit warren, an oyster fishery, a sterilized milk establishment, a crematory, race courses, a hotel, and a flagstone factory, all conducted by cities. The City of Liverpool controls utilities of more sweeping importance, however, than these. The docks are managed, not as in Bristol, where the city purchased them outright at a cost of between ten million and fifteen million dollars, but by a public trust, composed in the main of those who pay dock dues, which devotes all profits to improvements. In this way the net earnings of the docks accrue to the city's advantage—a system which London is likely to adopt. Liverpool, furthermore, to quote Mr. Boyle's report, engages in the following activities:

"It owns the water-works (one of the best systems in the world); it operates the street cars; it supplies the electric light and power; it has one of the largest and best public-bath systems anywhere and proposes to erect the finest Turkish bath in Europe; it provides public laundries for the poor districts; it furnishes flowers and plants for the windows in the slums; it sells sterilized humanized milk for the children of the poor at cost price; it has a salaried organist to play its famous municipal organ; it gives municipal lectures—and all these in addition to the usual undertakings of municipalities, such as parks with concerts, technical schools, etc. But the greatest socialistic undertaking by the Liverpool municipality is that of providing dwellings for the very poor, the dispossessed tenants of demolished insanitary dwellings of the slums."

Liverpool bought the street-car lines in 1897, and replaced horse-cars with double-decked electric cars, and quickly developed one of the best tramway systems in Europe with a two-cent fare for any distance up to three miles, a four-cent fare for five-and-a-quarter miles, and an eight-cent fare up to eight and a quarter miles. The working expenditure for last year was 63 per cent. of the gross receipts of $2,341,915; and the net profits went to the poor rates and into the reserve fund. The experiment of furnishing municipal dwellings to the poor was carried out by compelling owners of insanitary slum dwellings to demolish them. Then, as the tenants were dispossessed, the city had in readiness for them blocks of three or four-storied tenements. The work is still going on. One-room apartments in the tenements rent as low as forty-five cents a week; it costs from sixty to eighty cents for two rooms, and from $1.25 to $1.50 for four rooms, the largest provided. In a few dwellings hot water is supplied and in others gas which is paid for by the use of a "money-in-the-slot" machine. Under the law the city may include a garden with a house the annual value of which shall not exceed $15; and, when building a cottage, "it may fit up and supply the same with all requisite furniture, fittings, and conveniences." Already $1,925,000 has been paid by the municipality for demolished dwellings, $335,825 for land, and $732,875 for construction. The rents are insufficient by about two per cent. to meet even the cost of the dwellings; and the additional burden on the taxpayers has accordingly risen about three and one-quarter cents on every pound sterling.

It is maintained that the best governed towns, and those with the lowest taxes, are towns with such forms of municipal socialism as these; but this assertion is strongly con-

troverted, and it is pointed out, among other evils, that municipal socialism paralyses individual enterprise, although it is true that Liverpool was forced to attack the slum problem through the lethargy of private property owners.

THE SOFTENED PRESBYTERIAN CREED

THE Presbyterian General Assembly at its recent session in New York did a very remarkable theological task—at last. It cut all the doctrinal rigor out of the Westminster Confession (*i. e.*, out of the Presbyterian creed) without seeming to touch it. No shrewder piece of work was ever done since creeds began to be made, nor a more thorough. "A Brief Statement of the Reformed Faith" was adopted, "not as a substitute for or an alternative of our Confession of Faith," but "to inform and enlighten the people." The old faith, therefore, stands for those who believe it and prefer it; but the new "Statement" may be accepted by those who prefer it. The new omits rather than contradicts the old; but the interpretation of it that nine men out of ten will make is that it is directly contradictory of the old faith. The new "Statement," therefore, (under the present tendency towards theological liberality) will soon come to be generally received and interpreted as a practical denial of the old faith. Those who have been nurtured in a strong and positive creed, when they come to throw it off prefer a vague statement instead of a positive one; and for such vagueness the new "Statement" is a masterpiece: it means what you may wish it to mean.

For example: the old doctrine of Predestination is thus set forth in the Westminster Confession:

". . . Some men and angels are predestinated unto everlasting life and others foreordained to everlasting death."

That is definite and positive. The new "Statement" says:

"We believe that God from the beginning in His own good pleasure, gave to His Son a people, an innumerable multitude, chosen in Christ unto holiness, service, and salvation; we believe that all who come to years of discretion can receive this salvation only through faith and repentance."

This omits the essence of the old doctrine. Yet no man who holds the old doctrine will violently dissent from it.

Again, the doctrine of the futility of good works without faith is thus set forth in the Westminster Confession:

"Works done by unregenerate men, although for the matter of them they may be things which God commands, and of good use both to themselves and others, yet . . . are sinful and cannot please God, or make a man meet to receive grace from God."

And thus (very differently) in the "Statement:"

"We believe that God requires of every man to do justly, to love mercy, and to walk humbly with his God; and that only through this harmony with the will of God shall be fulfilled that brotherhood of man wherein the kingdom of God is to be made manifest."

The most important difference of all is the restatement (or the omission) of the doctrine of eternal punishment. The old article of faith is—

"For then shall the righteous go into everlasting life and receive that fulness of joy and refreshing which shall come from the presence of the Lord; but the wicked, who know not God and obey not the Gospel of Jesus Christ, shall be cast into eternal torments and be punished with everlasting destruction from the presence of the Lord and from the glory of His power."

The new "Statement" puts it thus:

"The wicked shall receive the eternal award of their sins, and the Lord will manifest the glory of His mercy in the salvation of His people and their entrance upon the full enjoyment of eternal life."

It is not rash to say that the doctrine of eternal punishment is thus practically eliminated from the Presbyterian creed. Yet men may hold that doctrine and remain Presbyterians. This whole "Statement" will soon come to have a meaning to the church that would now be disputed by the "strict constructionists;" and its adoption is a revolutionary event in the doctrinal history of American Presbyterianism and a great triumph of theological liberality.

THE LESSENING SUPPORT OF FOREIGN MISSIONS

THE report that the Committee on Foreign Missions of the Presbyterian Church made to the General Assembly

showed a larger contribution for the year than had ever before been made—more than a million dollars. But the Chairman of the Committee analyzing the sources from which this sum was received, showed that the gifts from the churches were slightly less than they were the year before; from the Sunday Schools and other organizations of young people very greatly less, and less, too, from individual gifts. The gains were from legacies. The Chairman of the Committee exclaimed:

"Whence comes this gain? Is it from a church quickened and inspired with missionary zeal? Not at all. We may as well face the shameful fact that in the year of America's greatest financial prosperity, in which almost every Presbyterian has shared, in this year of the greatest spiritual prosperity abroad the Church has ever seen; in this year of aggressive advance, had it not been that the Lord had called home to Himself a larger number than usual of liberal-hearted Presbyterians, the Board of Foreign Missions must have reported to this Assembly a debt, and not a small one either.

"Those who are responsible for saving us from debt are the dead, not the living! For the Church to continue to pray for more money to carry on this work and not increase its own contributions, is to commit the horrible impiety of praying to God to take home more of His servants, that the stinginess of the Assembly on earth may be atoned for by the generosity of the assembly above, who have no further use for the money."

A NEW CHAPTER IN FOREIGN MISSIONS

THE experience of the Presbyterians, in finding a lessening support of foreign missions, in proportion to the prosperity of the country, is typical. But a change in the direction of foreign missionary effort is taking place which is likely to make a stronger appeal to the mood and to the purse and to the faith of liberal-minded men.

Under the joint patronage of the American Board of Foreign Missions and the British Government, successful efforts to teach the natives of India how to be self-supporting are now carried on under the direction of Mr. D. C. Churchill and Mr. J. B. Knight. Mr. Churchill graduated at the Massachusetts Institute of Technology and later became an employee of an electric machine company in Pittsburg. Mr. Knight graduated at the Massachusetts Agricultural College and has successfully practised scientific farming. They have for a year helped the British officials in India and the American missionaries in the industrial schools at Sirur and Ahmednagar. A deputation of the American Board now returned after a careful study of mission work in India heartily approves the plan for the industrial training of the natives.

At the Sir D. M. Petit School of Industrial Arts at Ahmednagar boys are taught carpentry and wood-carving and metal work and both boys and girls are taught rug-weaving and other native industries. The Indian Mission Industries Company is trying by encouraging this practical work to preserve the ancient industries of India; and these products are easily sold in England and in the United States. The Rev. James Smith, who was for some time the head of this school, has said:

"Our present system of education is altogether antiquated. Our pupils pass out of school, possessing a considerable quantity of undigested knowledge, but without having had their powers of observation or reflection developed in the least. They must learn how to buy and to sell, how to make and how to save, what to buy and when to buy."

The most important difference between a man in India and a man in America is not the religious difference, but the industrial difference. Missionary work will take on a new lease of life as fast as it recognizes this simple truth.

THE SHARE OF CAPITAL, OF LABOR AND OF THE CONSUMER IN CHEAPENED MANUFACTURES

THERE are three sharers in the results of manufacturing activity — capital, labor, and the consumer. It has been proved by calculations from several points of view that the tendency is for capital invested in manufactures (apart from superintendence) to receive a lessening proportion of profit, for labor to receive an increasing proportion, and for the consumer to receive his wares cheaper. The *Financial Chronicle* of New York has worked out the same conclusion from the census bulletins on manufactures. The average annual wages per wage-earner employed in manufacturing during the last

fifty years has risen as follows—according to the census figures, by decades:

Year	Average Annual Wages	Year	Average Annual Wages
1850	$247	1880	$347
1860	289	1890	445
1870	377	1900	438

The apparent decrease during the last decade is not real, for the last census returns excluded from wages the salaries of officials, but the other census returns included them.

As for the share that capital receives—the gross profit in 1890 was estimated at 19.86 per cent., and in 1900 at 19.39 per cent. in spite of a very much increased gross output. If 10 per cent. be subtracted from the gross profit for depreciation, etc., (a conservative deduction for such a purpose) the net profit is a little more than 9 per cent.

Consumers have, of course, during the last half century greatly profited by lower prices in spite of the recent rise of price of some commodities.

MR. HARRIMAN AND MR. HILL ON TRANSPORTATION PROBLEMS

MR. J. J. HILL, the great master of transportation, at a public dinner at Chicago on June 4th laid down a principle for the control or restraint of trusts substantially the same as that President Roosevelt put forward in his Message to Congress. He would have the National Government exercise the power it has over inter-state commerce to compel them "to satisfy a commission that their capital stock was actually paid up in cash, or in property at a fair valuation, just as the capital of a national bank is certified to be paid up."

Mr. Hill regards the method by which many trusts are formed as the only serious objection to them—"not for the purpose of manufacturing any public commodity in the first place, but for the purpose of selling sheaves of printed securities which represent nothing more than good will and prospective profits to the promoters." If the organization of consolidations of this kind could have been prevented there would now be only a few (how few, who can say?) in existence. But such a remedy, useful as it would be in protecting simple investors, would do nothing to insure the good behavior of consolidations after they are once formed. But the same Federal oversight would no doubt, of necessity, cause such a degree of publicity as would bring all the "regulation" that the public would need or care to have.

On the same occasion Mr. Hill made a happy speech which has a good chance to become historic, for it is a big truth well-said:

"Next to the Christian religion and the common schools no other single work enters into the welfare and happiness of the people of the whole country to the same extent as the railway."

At about the same time Mr. E. H. Harriman, another of our great masters of transportation, said in an interview:

"The legislation of the future must be pro-railroad instead of anti-railroad, and it must develop confidences between the public and the transportation companies. . . . I believe commissions are things of the past. I do not think transportation companies should have to submit to dictation or control by bodies who do not know anything about transportation. I think now is the time for all of us to speak out what we think. Meet the thing face to face. Bodies formed for the purpose of controlling transportation should have in them representatives of the companies whose business is to be controlled."

In other words, the policy of regarding railroads as public enemies (which has been the policy of much legislation) is unfair; and the effort to compel competition by law in cases where unity of management is the natural economic tendency, is an injury to the normal development of transportation.

CONTINUED MERGING OF SHIP COMPANIES

THE Morgan ship "merger" has reached a more vulnerable spot in English pride than any previous American commercial advance. Beyond the resentment felt because British shipping business was threatened (and it is impossible for the American public to appreciate the great excitement and alarm that has been caused in England) was the fear of the loss of the fleet to the flag and an increased popular dislike for the American trust principle. Perhaps the spectacular quality of the combination made it seem of far greater import than it really is. An American goes quietly to England, buys the control of a considerable part of the shipping that the English Government had spent years of subsidizing and encourage-

ment in developing, and then tells the best shipyard in the United Kingdom that it may work only for him, or perhaps for one of the German lines.

But the ships continue to sail under the English flag, the additions to the fleet are built in British yards, and in case of war the ships subsidized by the Crown can still be turned into an auxiliary fleet. The only things American in the combination are a home office in New Jersey and some American capital, which means that a portion of the money that American shippers pay for sending goods abroad will stay in the country. And there lurks behind it all the fear of American management, which in other practical industries is more efficient than British management. There will be no change of flags unless the United States, by subsidies or other means, bids higher than England, after the three years of the present subventions are past.

Small wonder, then, that there is a reported English opposition company organized under the direction of Sir Alfred L. Jones of the Elder-Dempster line. The size of the reported combination can be seen in the following figures:

	Ships.	Tonnage.
Jones Combination	203	1,014,490
Morgan Combination	118	881,562
German Lines	376	1,224,178

The Allan and Elder-Dempster Lines, with their big freight carriers connecting with the Canadian Pacific railroad would have a chance for business. But the English combination, to defeat the trust, would need heavy subsidies or a greatly bettered service.

PRESIDENT ELIOT'S SERVICE TO EDUCATION

THE completion by Mr. Eliot of thirty-three years of service as President of Harvard College puts to his credit a larger contribution to educational progress than any other man has made in our history; and he is perhaps today the foremost private citizen of the Republic.

MR. GODKIN'S EDITORIAL CAREER

THE death of Mr. Edwin L. Godkin, the editor of *The Nation* from its beginning and for a long recent period also of the *New York Evening Post*, has called forth a large mass of appreciative literature about him and about his distinguished service to the country. He was so well-equipped a man and so forcible a writer, especially in indignation and in ridicule, that he stood among the editors of his generation in a class by himself. His great public service took these forms—he began the agitation against the spoils system of appointment to office and he so kept it up that civil service reform owes more to him than to any other writer; he waged a never-tiring war of ridicule against Tammany; he fought for a tariff for revenue only. In all these agitations, as in his opposition to Mr. Blaine for the Presidency, he never became weary or stale. The academic communities of the country, too, received from him greater intellectual stimulation than from any other editor of his time.

But Mr. Godkin was the last editor of a public journal who was content to address a small audience in a democracy. He did not understand the masses of men. He did not see them nor sympathize with them. For more than thirty years he wrote valiantly to get rid of vested and stubborn evils and he woke up the public conscience. But the constructive work of a democracy did not so strongly appeal to him. By reason of this temperament the great paper that he edited, since it was in a sense the organ of the most cultivated class, had much to do, during his working period, with the spread of the feeling among that class that good citizenship may content itself with criticism—that action is for others. Nearly all "The Unforeseen Tendencies of Democracy" which are suggestively treated in Mr. Godkin's volume of essays are unfortunate tendencies, and the new tendencies that make for strength he did not see.

But it was a valiant service for righteousness that Mr. Godkin did during the period when the first spectacular demonstration of the profits of newspaper-publishing transferred the control of so many journals from the editorial room to the counting-room. Once when *The Nation* was advocating an unpopular cause and losing many subscribers, an employee in the counting-room made bold enough to explain the rapid falling-away of its readers and to remonstrate with him. "Tell me when only two subscribers are left," said Mr. Godkin, with a smile, "then I will consider what may be done." In a little while they all came back again, for they missed the intellectual stimulus of the paper.

MAKING WALL STREET SAFE

[In this place in THE WORLD'S WORK there appears every month an article in which some timely and vital subject of the financial world is taken up]

EVEN in these recent years of prosperity, the investment centres of the country, both large and small, have experienced severe shocks due to manipulations in Wall Street. These sudden storms which have left such trouble in their wake have usually followed some stock-jobbing operation or an effort to "corner" some list of securities in the stock market. Temporary disarrangement of nearly all valuations have ensued. In almost every such shock fortunes risked in speculation were sacrificed. Legitimate investors felt apprehensive. Bankers became nervous. Europe wondered if American investments were safe. And then the sky became suddenly clear. The former valuations appeared in the market quotations. Confidence was restored. It was observed that the causes of the short-lived hurricane were entirely artificial.

Far-sighted financiers realize that such occurrences as these must stop. But it is very difficult to prevent them, for the stock markets is still a field for skilful gamblers. But there is now at work in Wall Street an abundance of intelligent energy directed towards one object:—to make the investment market of this nation safe; and to make it safer and safer until it shall approach as near as may be a condition of absolute security. It is in New York that convenience demands that the industries of the country shall be financed. It is to New York that investors must send their money. If the trust problem is to be worked out (as it must be) by making industrial securities safe, thereby drawing the poor man into partnership with monopoly, the man with $100 to invest must not feel that he is surrounded by unnatural conditions when making his investment. He must know that he will be protected from trickery. Banks throughout the country make loans upon securities according to their market valuations. These banks must be made safe in the knowledge that those quotations are based upon normal conditions. It is obviously impossible to prevent periods of financial depression that may come from bad crops, wars, or other untoward events. But it is possible to protect investors from organized rascality and piratical attacks. It ought to be possible to prevent artificial panics. But it is not an easy problem.

Early in May of this year, for example, there was one of these crashes. The stock of the International Power Company had been manipulated up to a market quotation of $199 a share. Suddenly the price dropped and those who had bought the stock, believing it to be a good investment, found that their property was salable at $78 less in the afternoon than it had been in the morning. The president of the company protested that the stock was good and that he himself had bought $3,000,000 worth of it at $160 per share. An audit company was set to work. This company's examination of the books showed that the International Power Company was earning about 3.73 per cent. annually; but the directors had but recently declared a quarterly dividend of 2 1-2 per cent.

This company was only one prop in a house of cards. Three Stock Exchange houses were forced to close their doors. It became known that one national bank in New York City had suffered, as had a score of New England banks, because they believed in the genuineness of the high value of these securities, and had loaned money upon them. True, all this was precipitated by the stupid blunder of a market operator in Wall Street, but it was a blunder that was sure to have been made at some time. The condition disclosed showed the supreme necessity for measures of protection. The protection is not demanded for the speculators who buy upon margins, but for the honest investors. New York is now the clearing house of the country. Money flows thither from bankers throughout the country to be loaned. Country bankers base

their actions upon what Wall Street does. It is vitally necessary, therefore, that Wall Street should be a mart of exclusively legitimate transactions, not a gambling resort and not a field for reckless and unbridled stock jobbery.

Here, however, was a peculiar situation. The Louisville and Nashville directors or their representatives had been selling for the account of the road itself. Mr. Gates and his friends had secured control of the road while effecting their corner. In other words, they had cornered the railroad, their own property. Furthermore, they had secured control of the road without intending to do so. The Gates party were invited to the offices of J. P. Morgan & Co. Then Mr. Gates agreed to send all the stock he had to J. P. Morgan & Co., and let the matter rest. Yet great damage had already been done and there was intense bitterness felt in numerous quarters.

The Morgan firm had had a somewhat similar experience a year before. Interests connected with the management of the Union Pacific railroad went into the market and purchased a majority of the common stock and almost a majority of the preferred stock of the Northern Pacific railroad. This buying had been done secretly, and that it was in progress was not known to the management of the Northern Pacific until about the first of May. The Morgan house had managed the finances of the Northern Pacific road for four years previously, and many capitalists had been advised by Mr. Morgan to invest in that road. As soon as Mr. Morgan learned that the road was in danger he went into the market and bought enough stock to make certain his control of the common issue. Certain market operators assisted in the movement toward a corner and on May 9th it was effected, with extraordinary disaster.

An entirely new factor now appeared—the courts of law. Some of those who had contracted to sell Northern Pacific stock but could not deliver it on account of the corner, secured an injunction against those who had contracted to buy the stock. That injunction was based upon this course of reasoning: "You have purchased this stock knowing that the seller could not deliver it. The law will not allow a man to make a contract when he knows the second party cannot fulfil it. You cannot, therefore, require delivery of this stock." This injunction restored the equilibrium. Next day, prices rose again to the level which they had formerly reached, and business continued as usual. But there had been ruin wrought by that storm. Under the conditions of temporary panic some 3,000,000 stocks were dealt in that day on the Exchange. They had suffered an average decline of about twenty points each, making their total decline about $60,000,000. Somebody lost this money.

Altogether aside from the matter of effecting a corner, here we have two instances of great interests going into the stock market and secretly purchasing control of great railroad properties which had been carefully developed and placed upon a paying basis by other interests. There is always danger in such possibilities. When Mr. J. Pierpont Morgan appeared on the witness stand in defense of the Northern Securities case, he said of this Northern Pacific incident, "I wanted to know for all time hereafter that when I go away from my office in New York I should not find next day or a week later that some other interest had in a night bought control of a property in which I was interested." That was why the Northern Securities Company was formed. "I thought," said Mr. Morgan, "that if we placed these stocks in the hands of a company with $400,000,000 capital stock, control of that company would be impossible to secure, and those stocks would be safe there if they would be secure anywhere under heaven." Mr. Morgan was speaking for the powerful interests which he personally represented, but he uttered the wish of investors everywhere. It is palpably unfair that, if A invests in a company because he has confidence in B's management of it, C should without warning or notice be allowed suddenly to announce that he had secured control.

In the case of the Louisville and Nashville Railroad, some very significant things were said to the Gates party by the managers of the New York Stock Exchange. "Corner this stock, if you wish to," they said, "but if you do, we will suspend the rules and permit the additional issue of $5,000,000 to be placed on sale immediately." This plan of forestalling a corner will operate when any new issue of stock is contemplated. It is a new resource against stock market speculating.

The plan of "listing" stock was necessitated by the pernicious plan once practised extensively of making an extra issue unexpectedly. To suspend the rules now in the matter of "listing" is a novelty, and an effective one.

The recourse to the courts in the Northern Pacific case sets a precedent which is sure to become of more powerful influence year by year It is strange that so ancient a principle of common law should all at once become an effective measure against such very modern evils. The man who sets out to bring about a corner now must know that if he contracts to buy more of a certain stock than he knows can be delivered, he cannot legally compel the delivery of that extra amount.

In the past many of the great names of the Street have not been synonyms of honesty. Many are not now such synonyms. An instance of the new tendency is interesting.

A few years ago a Wall Street firm was agent for a coterie of street railroad capitalists in Philadelphia. The agents held about 60,000 shares of stock for the capitalists on margin—shares that the Philadelphians were under moral obligations to control. One day the agents sent word to the Philadelphians that those shares must be taken up at once or they would be thrown on the market. The New York men knew that it would be impossible for the Pennsylvanians to take up those stocks on such short notice. Anticipating their failure to do so, the New York agents had agreed to sell at a low price far more of the stock than they held. They expected that when the 60,000 shares were cast upon the market, they would be able to buy at a still lower price all that was needed to fill their own contracts, and that a heavy gain would be made. This was a scheme that in other years would have worked, and to the serious injury of many more than those immediately concerned. But a new power had come into Wall Street. The Philadelphia men took a special train to New York and went to Mr. J. Pierpont Morgan. They informed him of their predicament. "Tell those fellows to send that stock in to me," replied Mr. Morgan at once. The agents were in despair. They were forced to ask for the twenty-four hours allowed by the Stock Exchange in such emergencies. Next morning, the agents said that by a mistake in book-keeping it had been thought that securities were in New York which were really in London, and they could not be delivered for a week or more. Meanwhile, the stock was largely bought on the Stock Exchange, the price went up, and the agents were forced to buy at very high prices in order to deliver the 60,000 and the other shares they had agreed to deliver at reduced prices. The agents had extreme difficulty in retaining their seat on the Exchange, and some very salutary advice was administered before the incident was closed.

The New York Stock Exchange is continually increasing its power over its members. The president of the Exchange is assuming more and more the authority to say to a member, "You have got to do this—or leave Wall Street." Many people imagine that the Stock Exchange is simply a place for "reputable" gambling. But this institution has an indispensable function to perform—the furnishing of a market where investment securities may be bought and sold without delay. The Stock Exchange recognizes that it owes a duty to the public—the duty of guaranteeing that the man who sends his money to that institution shall do so with his eyes open. The Exchange requires that when a stock is "listed," a complete report of the company's condition shall be made. It ought to be the imperative rule that frequent reports should be made. It is the incompleteness of these reports in the past which has permitted so much stock jobbing. The process of compelling frequent statements of actual conditions, however, is gradual. Summary insistence upon such a rule would be so revolutionary as to be ineffective.

Financial squalls are always the result of the operation of such unnatural causes as these that have been mentioned. Prevent the disease and you save the health. The possibility of the occurrence of such squalls is not yet removed. Dishonest men still make Wall Street a perilous place for "lambs." But the great problem is nearing a solution. Powerful interests, aside from the Stock Exchange, feel sufficiently strong to say to men in the Street "You shall" or "You shall not"; and in uttering such commands, it is not men only that speak, but honesty and millions of wealth.

THE DESTRUCTION IN MARTINIQUE

Illustrated from stereoscopic photographs by J. Martin Miller and others

IT is a curious and novel sensation that the world has got from the destruction of St. Pierre. Everybody, except the geologists, has probably got his notions of volcanoes chiefly from Bulwer's "The Last Days of Pompeii" (so far-reaching is the influence of a popular book), and the mention of the volcanic destruction of life instantly calls Pompeii to mind. Most persons, too, had unconsciously come to think of such a catastrophe as a thing that happened in an earlier era rather than as a thing that was likely to occur in our own time—as if the destruction of Pompeii were not an occurrence of yesterday, indeed, speaking in geological time, one might say of a few hours ago. Moreover, there are upwards of 300 active volcanoes on the earth now. We live. therefore, in an era of constant volcanic eruption; and it was only in 1883 that Krakatoa wrought destruction as great as Mont Pelée has wrought.

But no destructive volcanic action was ever before so quickly and so thoroughly described as this. Thanks to photography, we see the horrible sights that met the relief-parties that landed almost as soon as the heat subsided and before the ashes cooled that covered up the dead city.

The deadly action of the "wall of fire" was mercifully swift. It is doubtful whether any one of the 25,000 or more victims had any sensation of pain. A flame killed them, or they were asphyxiated in an instant on the morning of May 8th.

The site of the destroyed city is a vast pile of ruins covered with the substances emitted from the volcano—ruins which will probably never be excavated. The vivid reports written by the first visitors will take their place in everyody's mind alongside of the description of Pompeii.

The rivers that flowed down from the mountain are dried up or are great chasms of slowly flowing mud, one of them probably eighty feet deep. The dead city, where (every visitor agrees) a most oppressive silence reigns, a silence that impresses every one in a weird way, is so utterly destroyed that, even if there be no other volcanic outburst, it will never be the home of men again. The walls of dismantled buildings are in places standing only a few feet above the ashes. In many places the blocks of buildings can not now be distinguished—all is a general stretch of débris. The beautiful tropical blue ocean presents an impressive contrast to this desolation on land.

The intense and swift action of the heat of the first explosion is shown by the melting of silver inside a safe; and the white mass had been made fast to the steel. In several places glass tumblers were found that the heat had fused together. But crockery was found in many places that had not even been cracked. Cups and plates that were found there will soon be scattered all over the world.

The destruction of life was caused by a horizontal explosion of gas: this was the "wall of fire" that instantly snuffed out life and left charred corpses. The general topography of the mountain has been changed less than it was at first supposed. Professor Angelo Heilprin was the first scientific observer to climb up to the edge of the crater (and he made the ascent amid great dangers and with the utmost discomfort). He has reported that there are three main vents through which the steam issued, besides innumerable smaller orifices. The high bluff that formerly stood on the edge of the crater fell inward—probably at the time of the second severe explosion, on May 20th. This is the most important topographical change that has been observed. The mountain has not subsided and its height is practically unchanged. The most satisfactory description yet given out by any man who can write with authority is the following statement made by Professor Heilprin:

"As we stood on the edge of the crater a sublime spectacle began. I now have

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MONT PELEE FROM A DISTANCE

St. Pierre's largest suburb at the left. Opposite the anchored tug are the ruins of St. Pierre itself

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MONT PELEE FROM THE SEA

The multi-hued coloring of tropical foliage and the green of the jungle were here all the year. Now all is burned and scorched

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THE BUSINESS DISTRICT OF ST. PIERRE

In the immediate background. An American newspaper correspondent in the foreground

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ALONG THE SHORE

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THE CATHEDRAL AND RESIDENCE OF THE BISHOP

Where the bishop, nine priests, and twenty-one nuns perished

some conception of what is going on inside the earth, and have been a spectator of Nature's secret interior work. We were assailed with noise; far below there was a hissing of steam like a thousand locomotives, as well as violent detonations. The principal output of the crater while we were there was steam. The phenomena were limited and were not essentially different from those of other volcanoes in action.

"Positive assurance was gained that no molten matter has flowed over the lip of the new crater. Several observations taken with

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A TREE STRIPPED OF ITS VEGETATION

the aneroid barometer showed that the height of Mont Pelée has not been changed. Perhaps the bottom of the new crater may contain a cinder cone, but we could see down only about 150 or 200 feet. I believe, however, that the crater is very much deeper than this. I do not know the exact materials of which the pile of rocks in the centre of the crater is composed, but it seems to be matter which has been ejected from the crevasse.

"The phenomenon of the explosion of flaming gases is probably new, but a careful study of observations is necessary before an opinion can be reached. The electrical phenomena, also new, probably did not play the chief rôle in the destruction of St. Pierre, but were developed by and aided the other forces.

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THROUGH THE CITY'S STREETS

An avenue of destruction in St. Pierre

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ACROSS THE RUINS TO MONT PELEE

A party of Americans in the foregrond

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MONT PELEE

The streams of mud flowing down the mountain's sides

I have specimens which show the effect of the bolts of lightning. The latter were small and intense, and penetrated within the houses of the city. For rapidity of action, as well as for lives destroyed, Mont Pelée holds the record among volcanoes."

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LOOKING THROUGH *RUE VICTOR HUGO*

The principal street running parallel with the coast line

PRESIDENT ROOSEVELT ADDRESSING THE GRADUATES AT THE RECENT COMMENCEMENT EXERCISES

Commander Wainwright

THE NEW NAVAL ACADEMY

THE DEVELOPMENT OF THE SCHOOL FOR TRAINING NAVAL OFFICERS IN KEEPING WITH THE GROWTH OF THE SERVICE AND OF THE COUNTRY — THE IMPOSING BUILDINGS THAT WILL COST EIGHT MILLION DOLLARS

BY

COMMANDER RICHARD WAINWRIGHT

SUPERINTENDENT OF THE NAVAL ACADEMY

Illustrated from photographs made for THE WORLD'S WORK by Frances Benjamin Johnston

IN the earlier days of our navy the education of the officers was gained in the practice of their profession. Instructors were carried in the larger ships and some little "book learning" was forced into the midshipman if the captain and first lieutenant believed in it, but there was very little instruction unless these senior officers enforced it. Seamanship could be thoroughly acquired only by practice ; gunnery as then known was mainly a matter of practice; and even navigation required but little theoretical learning.

As the navy grew in age the requirements for a naval officer increased, and there were some attempts to fit him for his position. The younger officers in particular saw the necessity of an early education properly to fit them to fill their places in peace and war; and after much agitation a naval school was started at Annapolis in 1845.

A few old buildings in the army reservation at Point Severn were turned over to the navy and adapted to the uses of the school. For a number of years the needs of the navy prevented a progressive course, and

ARTILLERY DRILL

the classes had to be suited to the uncertain stay of the students. But finally a four years' course was adopted, and all midshipmen were required to pass through the school before going to sea. Since then the Naval Academy has slowly followed the steps of the navy. The four years' course has progressed in scientific and technical importance as the profession of naval officer has passed from the vocation of a partially educated sailor to that of a highly educated technical expert.

ARTILLERY DRILL
Preparing to move guns

Not that there were no highly educated officers in the earlier days of the navy, for there were many; but these gained their education outside their profession and the

ARTILLERY DRILL

ARTILLERY DRILL
The formation of the hollow square

ledge they acquired was more an orna- than a necessity. As the motive power d, however, from sails to steam, the of-war grew from a simple wooden sailing , where everything was handled by power, into the modern battleship, an nse steel structure filled with machinery; he sailor became the seaman of today, led mechanic. The profession of naval r grew correspondingly from a pleasant ith little theory and much practice to rned profession, a science, requiring a ugh grounding in theory with a lifetime ed to practice. Today, even with these, iency can be gained in only some of the hes.

e course at the Academy grew slowly the growth of the navy, gradually im- ng in the studies required and in the ng of character by discipline and drill, the necessities of the Civil War caused at increase in the number of students, shortening of the course for the brighter ones. This prevented any improvement in the course and somewhat weakened the discipline, particularly as the war prevented many officers from being detailed for duty at the school and necessitated the filling of their places by civilian professors.

The Academy, which had been moved to Newport, Rhode Island, early in the war, was moved back to Point Severn, Annapolis, in 1865 and Admiral David D. Porter was made superintendent. A better man for the time could not have been chosen. He inspired officers and students alike with enthusiasm for their work. The entire course was remodeled to suit the needs of the service, and the study of steam was introduced. Discipline was strict and drills became as regularly a part of the course as the studies, hold- the same relation to the practical side of the profession that studies did to the theoretical side. He attracted the brightest officers of the navy to the Academy, and as our vessels were being put out of commission rapidly,

AFTER THE VOLLEY

INFANTRY DRILL
Riot formation

there was an ample supply of officers for the purpose. The control of the school was again in the hands of men just from sea. The instructors had the confidence of the students, so necessary for the well-being of any school, and were given credit for all they could teach,—for even more than they knew. They were fresh from fighting in a great war, and by a few words could kindle the interest of the dullest at any time.

Admiral Porter did much for the navy by his work at the Naval Academy. His encouragement of athletics would have been sufficient of itself to make his reputation as a successful superintendent. But above all, it was in his time and by his influence and that of his family that pleasant social relations were firmly established between the students and the officers' families. No one thing has done more for the successful training of the young naval officers than the genial hospitality exercised at his house and the hearty way in which the example was followed by all under his command. This friendly association during recreation hours has become a treasured tradition of the school and has a most valuable effect upon the character of the students. A naval officer has many duties in time of peace that can be performed properly only by one who has had a careful social training. Moreover, an officer with polished manners has better control over his men. Not only does he treat them with more consideration, but they like to see him appear well beside foreign officers.

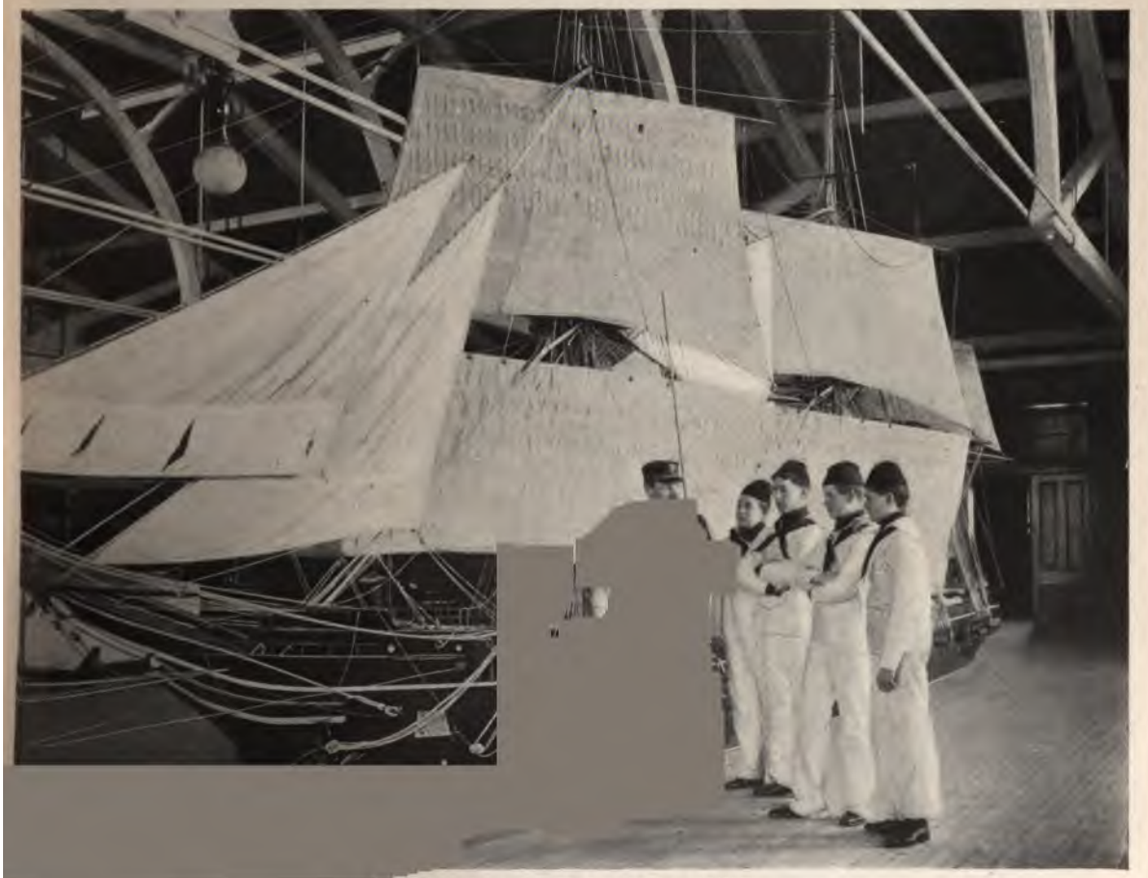
From this time on the education at the Academy was rather in advance of the actual requirements of the service. Modern navies

INFANTRY DRILL
The last charge

were advancing in all directions while our material stood still. Our officers were carefully educated and without difficulty kept abreast of the times in the theoretical part of their profession, but, practically, they were familiar only with old-fashioned seamanship, ordnance and gunnery. Yet when the country began to build a modern navy the graduates of the Academy were prepared to take their part and carry out the new plans successfully.

When Captain Ramsay became Superintendent in 1881 the school was like some large factory that has grown by small additions and was badly in need of systematic adjustment. With his constructive mind and with his powerful grasp of details he was exactly the man to fit the need. The studies were rearranged so as to progress uniformly and to follow in proper rotation, and a regular schedule of drills was adopted so that the practical exercises matched the theoretical studies and the time was expended to the best advantage. The influence of the sea officer on the Academic Board, which had

PLEBES' FIRST LESSONS IN SPLICING



THE BEGINNINGS OF SEAMANSHIP

FLAG PRESENTATION

GRADUATION DAY
Carrying graduates in triumph from quarters

been slowly weakened, was restored. By their length of service at the Academy and their consequent intimate acquaintance with details the civilian professors had acquired a preponderating influence in the control of the affairs of the school. But Captain Ramsay restored the balance and brought the school into harmony with the service outside. A few permanent heads of departments are most valuable as they preserve the traditions of the school and prevent too radical changes by being able to show good reasons for the existing state of affairs: but an undue number is sure to result in undue conservatism if not in deterioration. The Academy loses touch with the service and the importance of scholastic training is exaggerated to the detriment of character training and professional efficiency.

There has been no very sudden change since Admiral Ramsay was Superintendent. He was followed by Admiral (then Commander) Sampson, who knew well how to establish firmly the system of his predecessor. After the passage of the personnel bill the course was modified by Admiral McNair, then superintendent, so as to train all students alike, making of them both seamen and engineers. This was not a sudden jump, for since Admiral Porter's time marine engineering had formed a part of the course. All our ordnance engineers and electrical engineers had been trained at the Naval Academy. It was necessary only to systematize the course so that with a solid foundation in engineering in general and with plenty of practical exercises in mechanical work and in the various forms of engineering, the student was fitted to take his part in any of his duties on shipboard, and to specialize advisedly after his first tour of sea duty.

The buildings at the Academy have always fallen below what has been needed, and most of them have been mere make-shifts. When Point Severn was taken over from the army, the few buildings were turned into quarters and recitation rooms, and from time to time new buildings were erected, but always as patch-work. There never was sufficient money to enter into a well-considered plan. When the school was brought back to Annapolis, the buildings which had been used as a hospital were again adapted to academic uses. The *Constitution* and the *Santee* were moored to the wharf and were used as quarters for the junior classes. Portions of the adjacent land were gradually acquired and a new building went up from time to time. The most ambitious structure was the new cadet quarters, now called main quarters.

IN THE ACADEMY GROUNDS

RICHARD WAINWRIGHT, JR., RECEIVES HIS DIPLOMA

They were completed in 1869 and now stand condemned. At the time they were built they were only intended for temporary use. There was hope even then that a satisfactory and complete plan of new buildings might be developed; but these hopes proved vain for many years.

In 1895 there was an excellent combination of a strong superintendent and a good board of visitors, and in that year was started the present plan, which will give to the Naval Academy commodious and suitable buildings and to the United States a magnificent work of art, well worthy of a great nation. The new Academy buildings are largely due to the efforts of two men—the superintendent at that time, Captain Philip H. Cooper, now Rear Admiral, and Colonel R. M. Thompson, who graduated in 1868 and was in 1895 a member of the board of visitors. The board recommended the rebuilding of the Naval Academy and the energy of these two men pressed the scheme upon the Government.

The Department was induced to order a board to consider and recommend a comprehensive plan for all the necessary buildings, and Colonel Thompson persuaded the New York architect, Ernest Flagg, to consult with the board and with Captain Cooper. A beautiful set of plans resulted, recommended by the board and approved by the Department. But the Spanish War interfered and it was not until 1898 that an appropriation became available and the corner-stone of the new Armory was laid by Rear-Admiral F. V. McNair, who had succeeded Captain Cooper as superintendent.

The plan as viewed from the sea front shows the Cadet Quarters extending 729 feet, flanked on one side by the Armory and on the other by the Boat House. These buildings are at right angles to the direction of the Cadet Quarters, are 428 feet long and similar in appearance. They are connected by colonnades with the Quarters. This gives from the sea a harmonious group of buildings extending in a northeasterly and southwesterly direction for 1,278 feet with the high roof of the main building of the Cadet Quarters as a centre. Thirteen hundred feet in a northwesterly direction, with the main line of buildings parallel to and facing the first

THE PRESIDENT HAS A LAUGH WITH THE SMALLEST GRADUATE

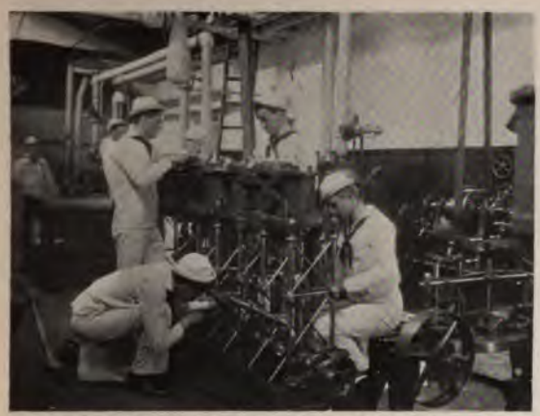
GOING ABOARD THE SUBMARINE *HOLLAND*

group, is the Academic building, with the Chemistry and Marine Engineering buildings on either flank and with the high roof of the Academic building in the centre and balancing the group to the southeastward. Between these two groups, facing the Severn River and forming the westerly side of the rectangle is the Auditorium and Chapel, with the Superintendent's House and the Administration building on either side. The fourth side of the rectangle is formed by the basin. From the steps of this basin and facing the Auditorium is the best view. On either hand is a handsome group of buildings with the dome of the Auditorium as the centre.

There has been much criticism of the amount of money allotted for the construction of the new Auditorium, viz.: $400,000. This building, however, should be sufficiently large not only to accommodate the cadets and the officers and their families when attending church, but also to furnish seats for the many relatives and friends of the cadets on graduation day. Even this would not require so

ON BOARD THE *TERROR*

Sea target practice



AN ENGINE ENTIRELY CONSTRUCTED BY CADETS

large a sum, if the Auditorium were not to form one of a number of handsome buildings. Moreover, not to have a handsome dome at this point would seriously injure this great work of art from an architectural standpoint. To cut out the dome would be as if one ordered a handsome picture and in order to save a few dollars left out the central figure.

If the plans as designed by Mr. Flagg and approved by the Navy Department are carried out, the country will receive in return for its $8,000,000 not only commodious buildings well suited to the needs of the Academy, but also a splendid architectural masterpiece well worthy of the country and so far unique that the entire group of buildings are the design of one master hand.

PREPARING MOULDS FOR METAL CASTING

The buildings forming the Naval Academy have been of slow growth and at the same time the old buildings have been slowly decaying. Without the funds for a logical scheme they have been always behind the needs and the process of decay has caught up with and passed that of construction until an entire reconstruction of all buildings became a necessity. Thanks to the energy and ability of those who pressed the necessities of the institution upon Congress and thanks to the Spanish War that made the navy popular with the people, the rebuilding of the Academy has begun upon a plan commensurate with the dignity of the country, the necessities of the institution and the requirements of good architectural taste, a knowledge of and a desire for which was spread

CUTTER DRILL
Under oars

through the United States by the White City at Chicago.

The object of the Naval Academy, whose growth has been slightly traced, is to train officers for the navy. In the four years' course the youth who enters fairly well equipped in the rudiments of mathematics and English studies must be fitted to take the place of an officer on a modern battleship, and more than this, he must be fitted to care for himself and the men under his charge. As a young graduate on a battleship, he will in almost any emergency be certain to have some older officer of experience to guide his energies in the right path. But it is possible that being assigned to some smaller ship an

WITHIN THE NEW ACADEMY

emergency may throw him upon his own resources, and the safety of the ship and crew may depend upon his knowledge and courage. It is, therefore, necessary to have the naval cadet more thoroughly grounded in the theory and better acquainted with the practice of his profession than is usually required in an ordinary technical school, where the graduate can acquire his practice slowly and increase his grasp of the theory constantly under a guide until fitted to walk alone. The naval profession is one that requires constant practice to keep efficient and constant study to keep abreast of the times; and the graduate, while lacking much that experience will teach him, must be fairly well fitted to walk alone, should that be required by an emergency.

The graduated cadet must be a seaman, an engineer, a true marine engineer, well acquainted with steam, electricity, and ordnance, and a navigator and surveyor, and he must have a fair knowledge of his own language with some acquaintance with French and Spanish. To achieve this in four years he must be well grounded in the rudiments; he must have good health; and he must work

A GROUP OF THE OLD BUILDINGS
About to be replaced

GENERAL VIEW OF A PART OF THE GROUNDS
Showing the new boat house nearly completed and the foundations for the new quarters

hard. The course must be progressive and the instructors competent and in sufficient numbers to be able to instruct—not merely to examine and hear lessons. Even then the work of studying would be too hard for the average youth were it not for the fact that much of the practical work is good out-of-door exercise and the hard brain-work is well balanced with plenty of physical exercise and healthy amusement. The instruction for the fourth class, that is for the first year, completes their study of algebra and geometry, and includes trigonometry and descriptive geometry. In English it includes rhetoric and something of the art of writing English and Andrews' Manual of the Constitution. French and Spanish and mechanical drawing are begun. It is a necessity for a naval officer to be able to read a drawing and to make a good working sketch. The naval architect, the marine engineer and the ordnance engineer has each his special methods in drawing, with which the cadet must become familiar. Accordingly he starts drawing with the beginning of his course. All his professional work during this year is practical and is given him during the drill period. The academic year opens on the first of October and closes about June 1st; then comes the practice cruise, which is devoted almost entirely to practical professional work with some little study of the theory of professional subjects. The cruise ends about September 1st, when the cadets have a month's leave to visit their homes. Academic life begins again on the first of October. During the third-class year the cadets complete their studies in the mathematical department. They have trigonometry, descriptive geometry, conic sections, differential and integral calculus. In English they

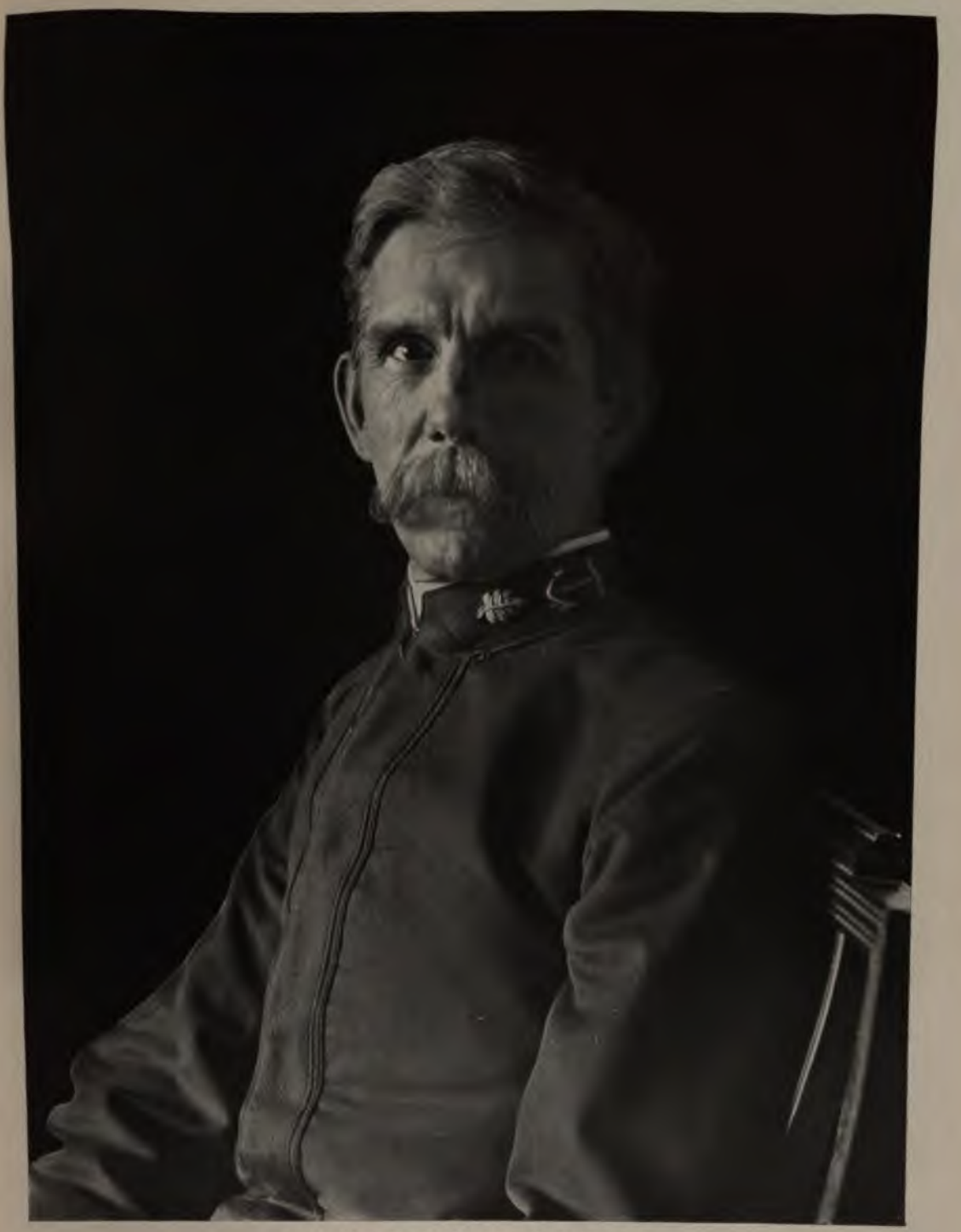
TECUMSEH
A famous figurehead

study naval history. They continue the study of French and Spanish and mechanical drawing, and take up the study of elementary physics and chemistry. Their practical work is continued during the drill period and on the practice cruise at the end of the academic year.

After the month's leave, they take up their life at the Academy as second-class men, and now begin to take up the study of professional subjects. In the department of mechanics they study integral calculus, mechanics and hydro-mechanics. They continue the study of physics and chemistry and begin the study of electricity and magnetism. They continue mechanical drawing and lay the foundation for engineering in studying the principles of mechanism and mechanical processes, with marine engines and boilers. They study theoretical seamanship and the drill regulations for infantry and artillery. The practical work continues during the drill period and has advanced progressively so that the cadets are well prepared for the professional subjects of this and the following year. This is their last practice cruise, and by far the most important one, as they are now carefully instructed in their duties as officers. They are required to perform the work of officers at sea in handling the ship, and managing the motive power, both steam and sail. They must work hard at practical navigation with instruments and charts. They visit the great shipyards of the country, listen to lectures and take notes, with the ships and engines under construction as object lessons.

A GROUP OF SECOND-CLASS MEN

In their last year as first-class men all their studies are professional. They have seamanship and naval tactics; ordnance and gunnery; navigation, compass deviations and surveying; boilers, engineering materials, designing and naval construction; and elec-



COMMANDER RICHARD WAINWRIGHT

Superintendent of the United States Naval Academy at Annapolis, who was in command, during the Spanish War, of the famous *Gloucester*

trical engineering. The practical work goes hand in hand with the theoretical during the drill period. The first class are the officers of the cadet battalion and under supervision perform much of the work of officers. At the end of their first-class year the cadets are graduated and are ordered to sea. Here they nominally continue their course for two years, being examined at the completion of that time and commissioned as ensigns. Actually their work as officers begins after leaving the Academy, and under the present necessity for more officers they perform the duties of even higher grades than that of ensign. In fact they perform the duties of commissioned officers without the rank or pay or right to pension or retirement in case of injury or illness in line of duty.

The course of study and the formation of character, like the buildings, have been of slow growth; but unlike the buildings the growth has been healthy and there is no sign of decay. The course has been kept abreast of the progress of the times. The advance in knowledge by graduates has been equal to the advance in material and for some time has been ahead of it. There has been no necessity for an entire remodeling of the course. The changes have not been too rapid for healthy growth and not slow enough to encourage decay.

At the close of the Civil War the study of steam was introduced, but unfortunately, the advice of Isherwood was neglected and the students were separated, some remaining sailors with little training in engineering, while others became engineers with little training in executive duties. But the necessities of the service required the seamen to be trained in ordnance and electrical engineering with some knowledge of the steam engine, so that when the amalgamation came and the mistake made thirty odd years ago was rectified, there was no great change in training necessary. The seaman was taught a little more engineering and the engineer a little more seamanship, and now true marine engineering includes steam, electricity and ordnance.

There is one charge that has been made against the Academy by many in the service. That is, that there is not sufficient practical work and that too much time is spent in theory and too little in practice. The finished sailor was astonished that the graduate was not proficient in handling a ship under sail. The modern seaman thinks he should know how to handle a ship under all circumstances.

FORMATION

Others expect him thoroughly to understand the largest engines, to overcome at once all difficulties with dynamos and motors; to work the turrets and regulate the torpedoes. They would have him fluent in Spanish and French. In fact, to meet the wishes of all the graduate must be a completed officer. They realize he must lack experience, but they expect his knowledge to be as ready for use as if he had the experience of years. They fail to see that to make a good officer the mind must be well trained to grasp the many facts placed before it, that without sufficient theoretical training the mind would remain undeveloped and incapable of grasping new facts and of understanding new machines. With too much practice and too little theory graduates would surely find themselves at a loss when, as must occur frequently in their profession, they found themselves confronted with new machines, or under new circumstances discovered their experience at fault. The graduate is well grounded in theory and practice; he has as much knowledge forced into him as is possible in four years; but much of it must be in a somewhat confused state. He must be slow in applying his knowledge until experience has enabled him to arrange it in orderly sequence, so as to be available at once in any emergency.

To discuss the training of cadets at the Naval Academy without mentioning athletics would be to leave out a most important factor in their character training. Boating, football, baseball, fencing, track athletics and gymnasium work are all encouraged. The various competitive games are a source of amusement to all and of healthy exercise to many. Courage and skill are gained and self-denial must be practised by those who train for the various sports, and athletics furnish one of the most important aids in training a youth to become an officer.

Much is required of the modern naval officer and too much care cannot be taken with the training of the youth who may have to command a battleship or even a fleet of battleships. An American boy is well fitted to receive the necessary training and when he is sound in mind and body, and well grounded in the rudiments, the course at the Naval Academy places in his hands the means to become an ideal seaman and marine engineer, lacking only experience at sea, to make him a thorough American Naval officer.

THE MINISTRY AS A PROFESSION

BY

REV. DAVID M. STEELE

THE day I graduated from college an old cab-driver, half philosopher, half reprobate, asked me what I was "going into." When I said the ministry he made this comment: "Well, you have chosen a good profession but a poor trade."

If a profession is "a calling that involves liberal education and requires mental as contrasted with manual labor," and a trade is "any business entered on for profit or subsistence," then he was right in both particulars. There are those who choose this profession in the same manner that they would choose any other; that is, on grounds of the remuneration that they think they see in it. Choosing it in this manner these persons make of it a trade. Choosing it on these grounds they themselves defeat their own ends; for success, in this profession, does not lie that way. It is true that there are ministers who receive large salaries, but they are never those whose chief desire is that salary. There are preachers who are popular, but they are never those who covet popularity. There are pastors whose social position is high, but they are never those who desire above all things social position.

But, if the ministry is not a trade, is it even a profession? May it be ranked equally along with other so-called liberal professions? In choosing this profession is the element of choice involved at all? There are those who

would say "no" to all these questions and that for a single reason, namely, that there is a feature here unknown elsewhere, that is, that curious thing known as a "call."

Now, are they right? and what is a "call?" Well—— "There was a man sent from God whose name was John." There was another and his name was Augustine; another, Gregory; another, Phillips Brooks; another, D. L. Moody; that is to say, a fiery denunciator, a cloister saint, a master of organization, a scholarly preacher, and an earnest exhorter. In the churches of America today there are 112,000 ordained clergymen and, in the schools for training such, six thousand students. It is probable that each of these men would inwardly make for himself the claim that necessity is laid upon him to emulate one of those five men along some one of those five lines; but it is barely possible that some at least are mistaken:—that while this many feel themselves thus "called, few are chosen."

For a "call" involves not only feeling but fitness. It is a conviction of special aptitude for special service; an aptitude so special and a conviction so deep that the man who has the first would be guilty of a breach of trust if he should fail to act upon the second. It is an office therefore to be shunned rather than to be sought after and the whole matter resolves itself into the fact that "No man ever ought to preach if he can help it."

This special aptitude, in turn, consists in the ability to do well one or all of several things; to rebuke, to organize, to instruct, to inspire and to console. There is need in every generation for "a voice crying in the wilderness" against abuses; but this is not enough. There are in the world ten thousand times enough forces for good to overcome all the forces of evil if only they were drawn together; therefore, another great task is organization. Again, the reason why in most cases men are bad and not good is because, to put it naïvely, "they do not know any better;" therefore, instruction also is needed. But precept is poor trash without example; so what is still further needed is men to turn theory into practice, to show that the thing can be done and thus to inspire. Last of all and chiefest and most difficult of all, there are lonely hearts to cherish, there are broken lives to mend, there are sorrows to assuage and there are wounded souls to console. He who can do none of these five things, no matter what he feels, has no "call" to the ministry; he who can do one of them has a chance to satisfy the highest possible ambition; he who could do all of them would rise to the height of a great argument indeed for he could "justify the ways of God to men."

The need today for men possessing such a call is measured only by the vast amount of such work that there is to do. How much there is of this work and how much people want to have it done, is known best only by those who have tried most earnestly. Even to the merely curious and to those but slightly interested it is evident that, in the great march of humanity toward better things, we are as yet tenting many camp-fires from the great Millennium.

But in addition to a call to do this work and an aptitude to perform it, something more practical—not to say more expensive—is involved: that is, a course of preparation for it. A comparison between the cost of preparation for other professions and that for this one may be set out in several general statements.

First, the number of years required in this course is greater than for most other professions. Before he is "ordained" a "candidate" must graduate from a Theological Seminary, which means three years of study. Before entering the seminary he must have been a college graduate, which means four other years. Before entering college he must have "prepared" somewhere, say two or three years. All this gave point to the old-fashioned phrase—"going to the learning," which merely meant that a boy, set apart for the service of the Church, started to school at an early age and until he was perhaps twenty-five spent all his time there.

In contrast to all this, however, stands another fact; the actual cost of completing this long course is less than that of other shorter ones. In the seminary—and indeed often in college—the "theolog" pays no tuition, while other students, at least in graduate schools, pay from $100 to $500 a year. His text books cost him almost nothing; those in other courses often cost $100 yearly. In addition to this, the practice of "student aid" by Boards of Eduation in almost every denomination makes it possible for him to receive from $100 to $200 a year; while, in

other courses this possibility is limited to a few special "scholarships." Last of all, when the course of preparation for the ministry has been completed the candidate is ready to enter at once upon his work; *i. e.*, he may be installed and take charge of a parish of his own at once. Thus, while he spends a longer time in preparation than most lawyers or doctors or engineers, he does not have to spend the one, two, three, or even five years that they sometimes serve as clerks, assistants or apprentices in offices, hospitals or factories. Even if they do not spend such periods, the earlier years of his professional career are different from theirs in that he has an assured, even though small, salary, while their period of "waiting" involves all the precariousness of playing the races.

So much for the kind and the amount of work and for the calling, qualities and preparation of men who can do it. Now what is their remuneration?

One thing at least it is not; it is not in terms of money. No clergyman can become rich. The word "rich" connotes different things in different periods, but it is always representable in terms of figures. The figures are larger today than they ever were before and by no possibility can they be less at present than $100,000. The incomes of clergymen vary with the greatest possible variety from those in missionary districts to those of fashionable pulpits in some great metropolis. It is difficult to state here with any accuracy even the extremes of high or low and that for several reasons.

First, his "income" and his "salary" are not the same thing; the first includes the second and generally a parsonage and perquisites besides. Again, living as he is supposed to do in simple manner, the scale of his expenses is smaller in proportion to his income than that of other salaried men. Again, traditions of a time when he was "paid in kind" still serve him to the extent of furnishing him "discounts" on books, clothes, furniture and what not, half-rates on railroads, low tax rates and manifold exemptions here and there.

Speaking generally, the largest incomes ever had by any clergymen were probably those of three New York preachers who by sad coincidence died during one year past: Dr. Brown of St. Thomas' Episcopal Church, Dr. John Hall, Fifth Avenue Presbyterian Church, and Dr. Maltbie Babcock of the Brick Church (Presbyterian) each one of whose yearly income was nearly $30,000. Of course these figures are, to say the least, exceptional, for in each of these denominations—and they are the wealthiest in the country—there are not ten men today in the United States whose salary is $10,000 a year while there are men at work with salaries of not $1,000 in ten years. The average salary of the average clergyman of the average denomination in the average community may be stated on the best authority to be about $900. As a mere problem in multiplication, then, in which the two factors are a given year's salary and a given number of years, for any clergyman ever to become rich from his salary is simply a mathematical impossibility.

Nor may he have recourse to those expedients employed by other professional men. For example, he may not speculate; what broker would respect the man who wore a "cassock" vest into a bucket-shop? He may not write salable books; the kind of books he can produce do not bring large "bounty." He may not lecture at high prices; at least not if he does his work at home. He may not even be born rich; at any rate not without vitiating his usefulness as a pastor to large multitudes of people.

Again, his remuneration is not in terms of popularity. To some natures—always to shallow ones—this would be "wages" enough; but the irony of fate appears in that those who strive after popularity never get it. In about the same way that "Kissing goes by favor" so popularity goes, not to those who consciously strive for it, but to those who unconsciously merit it.

The appalling thing to consider is the methods often resorted to to gain popularity. Some of these appear in advertisements every Saturday of themes for Sunday sermons. For example, in one column of one issue recently appeared the following: "Did Lot Like Salt? or, The Vice Crusade in Sodom;" "Take it by the Tail, or Samson's Revenge;" "Theme—Gossip; Text—'Ephraim Feedeth upon Wind.'" The significant thing is that these very men who on Sunday "court a smile when they should woo a soul" are the same

who on Monday attend Conferences of Clergy to discuss problems such as "Why are the churches not filled?" and "How to get men to the service." Shades of Wesley, Huss, Savonarola, all the saints and all the martyrs! Why should such churches be filled? and what have sober, serious, honest, earnest-minded men in common with such "Popular Preachers"?

Still again, the minister's remuneration is not in terms of social position. This is a very old and a very common fallacy. It is so old indeed that it was once a truth. Once the ministry was an aristocracy and the social incentive was at work for its supply. Not many generations since, the Dominie, the Parson or the Rector was the leading social dignity in each community. This is not true to the same extent today. It is not true to any extent for the same reason;—that is, merely because he happens to be "the preacher." In city communities "social life" is being sharply separated from "church life"; even in country districts it is being withdrawn from the clergy's dominance. The reason for this is in part because the social standard of the average community has advanced, in part because the social status of the average clergyman in such community has deteriorated. No student for the ministry, then, need expect his remuneration to be social prestige. If he is well-bred and is a gentleman he may expect to pass for such; but if he is a boor he need not hope to flee his faults by consecrating them.

What, then, is his reward? It takes the form not of remuneration but of recompense. The two things are not the same but very different. The difference is that between salary and satisfaction, between gratuity and gratitude.

First, I say it is in terms of satisfaction. The ideal preacher preaches for only one reason; that is, because he has to. Preaching thus he has only one thing to give; that is, his "message." Giving this, it is certain he will find his goods are not negotiable; he cannot get money for them. The thing he can get is a feeling of deep satisfaction that he has performed his duty. To those who possess a "call" such satisfaction is reward abundant. To those who can understand this statement, its truth is self-evident; to those who cannot, any attempt to prove it here would be a game not worth the candle.

Once more, his reward is in terms of gratitude. It is difficult to make this plain except by citing instances and instances are so bound up with human sorrow and so hedged about with confidence that to rehearse them would be barbarous. It is safe to say, however, that no profession offers opportunities so great for one to help his fellow-men as this one does; for any help that is real help is the kind that helps a man to live. If one is able to do this, in ever so slight a degree, he will oftentimes be fairly overwhelmed with heart-felt thanks. If he is honest as he is and half as modest as he ought to be, he will be 'shamed at times beyond expression at the lack of all proportion between the price paid and the value of the "goods delivered."

There is one other item in this recompense, —an item that may be enumerated by those who are in the work for other reasons, but may never be a motive for enlisting in it. A friend of mine once put the matter thus: said he, "It is worth something to be in a kind of work where one can keep his hands clean." Not with soap and water and from dirt, but with the dignity of office and from bribes, schemes, plots, intrigue and rivalry. Perhaps the lawyer's occupation lays him open most of all to these; the doctor's next, and so on down the list. This does not mean that all members of other professions succumb to these temptations, while all members of this one resist. There are men before the bar, within the clinic, on the road, and in the sanctum just as good as any who have ever stood behind a pulpit; that is not the point. There are also men with stole and mitre now and then who would be better decked with ball and chain; neither is that the point. The point is that what makes it difficult for one, that is his position, should make it easy for the other, to "keep his hands clean."

So much for his recompense. But there are also dangers to which the clergyman is subject, subject in a way that men in other professions are not.

The first is that of being "a failure." Just in proportion as success in this profession brings the highest honor, so failure brings the greatest dishonor. Added to this is the fact that he cannot tell what he can do until he tries and he cannot try till the end of a

tedious course of training. The possibility thus appears that, at the end of his course, at the beginning of his work, he may discover that he has no "message," and thus at middle life, what ought to be for him the climax of success becomes the anti-climax of failure. This is true, of course, of all professions, but there are conditions here which aggravate it. One is that the course of training is longer than that for other professions; another is that so many, as boys, do not choose the course at all but have the choice made for them by over-anxious, over-proud and unwise parents; still another is the fact that "student aid" makes it possible for students, "poor" in more senses than one, to make their way here who could not accomplish any other course.

The second danger is that of beng "overtaken in a fault." The practice of having two standards by which to judge shortcomings, one for the clergy and another for the laity, dates back to the age of "The Religious." It has its modern counterpart in a longing for "experts" by which many men would like some of their fellows to be good for them by proxy. What is "fault" in such an imitator thus comes in the image to be reckoned as sin, and what is only "human frailty" for laymen is counted scandal for a clergyman. Thus the standard set for him is unique and it is very high. If he can live up to it he has great honor; if he falls he "falls like Lucifer—never to hope again."

I recall the closing sentence in a boy's story that I read twenty years ago of frontier life in the Far West. It was: "The West is a good place for young men, but drones and weaklings had better stay at home." Exactly so in the ministry; for life in the ministry is a frontier life:—he who expects to "draw" men must always expect to go before them. Frontier life is strenuous and it is perilous. He who enters this calling therefore must be both able and willing to do hard work. To lead men he must be a "leader"; to lead many he must have boundless sympathy for those who fall behind; to keep on leading requires hopefulness of a rare quality. The possession of these three things: ability, sympathy and optimism, is the three-fold criterion of success in this profession.

AN EDUCATIONAL EXPERIMENT WITH CANNIBALS

THE CHARACTERISTICS AND PROGRESS OF TWO BOYS FROM CENTRAL AFRICA WHO ARE IN AN AMERICAN SCHOOL—ONE A SON OF A CHIEF, THE OTHER THE SON OF A FISHERMAN

BY

SAMUEL P. VERNER

OF STILLMAN INSTITUTE, ALABAMA

FOR African savages of the iron age to be studying for a university education in America is a unique illustration of the complete revolution in the relative conditions of men which the last few years have been working over the world.

These African lads came into my charge in the country of the Lunda highlands of Central Africa several years ago, at the time of the Belgian expedition against the Arabs. It may be remembered that Kitchener's advance against the Mahdi from Egypt was simultaneous with a movement against the murderers of Emin Pasha from the mouth of the Congo as a base by Baron Dhanis, one of the successors of Henry M. Stanley. Dhanis ascended the Congo, and then its greatest Southern tributary, the Kasai, at whose sources he recruited allies from the Batetela tribe for the war against the Arabs. Among these Batetela, were these two boys, Kassongo Lusuna and Kondola Mukusa.

The elder lived at a large African town between the Lomami and the Lualaba rivers. At the time of this expedition he was about twelve years old, and the Batetela soldiers, Dhanis's allies, took him along with other boys to carry ammunition and food. Kassongo was present at the battle of Nyangwe, when the Arabs were so signally routed, and when the Batetela are said to have feasted on the remains of their foes. Kassongo admits this cannibalism; but he says it was practised because the Arabs used to capture his people and feed them to the Manuema when meat was scarce, and that his countrymen were determined to avenge themselves in kind. It is just to Dhanis to say that he was not responsible for this savagery on the part of his anthropophagistic allies.

Dhanis induced many of the Batetela soldiers to take military service under the Belgian Government. These Batetela became famous all over Central Africa for their bravery, intelligence, and industry. They were the main dependence of the Government in subduing refractory natives, and in establishing its authority over the immense domain given to Belgium by the Berlin Conference. Many boys accompanied their elders to the posts of the Government, and among these were Kassongo and Kondola, a child of the Bakussu branch of the Batetela tribe. Kassongo was the nephew of the Batetela king, and consequently he belongs to the African nobility, and, according to the usage common in many tribes, he is the heir to the throne. Kondola is a plebeian, the son of a fisherman.

The country in which the boys lived is the most remote from outside influence of all Africa. The Batetela had known less of the European civilization than any people on earth. The territory is two thousand miles from either coast, and just south of the equator. It lies beyond the heads of navigation of the rivers, and not even the ubiquitous Portuguese had traversed it before Stanley met the Batetela, and was forced to fight his way down the Congo through them. These men were such confirmed cannibals that it has been repeatedly asserted that they ate their own dead, and had bone-yards instead of cemeteries. They had repelled all attempts at conquest, and their name was a synonym for terror over an area larger than Texas. Kassongo and Kondola, therefore, were types of as savage a people as could be found on the globe.

When the commandant of the fort to which these volunteers went found such a large camp-following of boys and women attached to his allies, he was puzzled to know what to do with them. This predicament became most serious when the Batetela who had remained at home broke out into rebellion against the Belgian authority, and thus rendered it impossible for any of the others to return or to be sent back. The commandant decided to distribute the boys among the neighboring traders and missionaries, under the agreement that they should be cared for and educated in return for their labor, and duly restored to their free citizenship upon reaching their majority. In this way the two lads finally fell to my charge, when I was at Wissmann Falls, at the head of navigation of the great Kasai. Kassongo was then about fourteen, and Kondola ten years of age, parentless, homeless, waifs from the great tide of surging humanity in the recesses of remote Ethiopia. Thus they became entirely dependent upon me, and have been my wards now for five years.

My interest in these boys became the stronger as their traits of character came more boldly into prominence upon longer acquaintance. They soon became a fascinating study in education and psychology. Their natural wildness and utter lack of any inherited tendencies towards civilization made this study unique. Kassongo became a messenger boy whose duties were principally to act as negotiator in the many diplomatic relations I had to maintain with chiefs and tribes around me. Kondola acted as usher to the crowds who thronged my house or tent, and also as purchaser of supplies and provisions. They both learned to read and to write in the native tongue, which I reduced to alphabetic characters for the purpose. I did not, however, teach them any foreign language.

When they came under my care, they would lie, fight, steal, and gamble whenever the occasion offered. To break up these habits was not the work of a moment. But before I left Africa with them, I could trust all my goods and my life to them, and they were of a better moral character than the average Negro lad is in the Southern States of America

though I do not intend any invidious comparison. The methods I used were both moral suasion and the rod. I found soon after I made their acquaintance that the little savages really had a clear conception of moral distinctions, and their habits were the result of environment and not of originally defective moral constitution.

In some perilous adventures I had abundant evidences of their devotion and fidelity. Once I went alone with Kassongo to the summit of a high mountain above Wissmann Falls to make some geographical observations. While walking along the grassy summit, I fell abruptly into a concealed game pit, ten feet deep and set with sharp poisoned stakes. I sustained a severe wound, and narrowly escaped death. With the boy's help I scrambled out of the pit, but became so weak that I could go no farther. Kassongo ran five miles to get help from a native town, returning in a little more than an hour; then he sucked the wound to free it from poison, and set about nursing me through the almost fatal illness which followed. I am sure that I owe my life to his promptness and presence of mind on this occasion.

At another time Kassongo with two other lads made an escapade into a dangerous country adjacent to our settlement, and it became necessary for me to go to their immediate rescue. Taking with me Kondola, who had refused to join the others, I made a forced march into the interior to find them. We walked fifty miles the first day, and slept in a forest infested with leopards and elephants and though Kondola was only twelve years old he did not complain or falter. When we reached our destination, I was so exhausted that I had to be lifted into a boat; but my little companion promptly joined in a game of ball, which the youngsters of the town were playing, and seemed not the least the worse for our severe exertions.

Once we were obliged to make a perilous trip by canoe down the Kasai through the Wissmann cataracts, in order to meet a steamer that was expected below. I myself took the paddle at the stern, but Kassongo volunteered for the dangerous place of paddler at the prow, where he had to keep the lookout for rocks, sand banks, crocodiles, and hippopotami, and to do a large part of the steering. He maintained his post all day long, the boat making nearly seventy-five miles, and we passed in perfect safety through one of the worst pieces of water on earth. This boy is wonderfully adept in watercraft; he swims, dives, and rows amazingly well and he knows no such thing as fear on the water. But for his level head on another occasion a whole canoeful of men and women would have been drowned.

When the time for my departure for America drew near, several of my staunch little friends clamored to be allowed to accompany me to the "white man's country." What I had told them had greatly excited their curiosity, and it was pathetic to see their eagerness to go. Of course I could not take them all, but I selected the two Batetela, principally because of their superiority, and because one was the type of the highest class, and the other of the plebians, and each presented distinctly typical ethnological characteristics. Their friends brought many rare curiosities as evidence of their interest and appreciation, which I placed in the United States National Museum.

One of the most touching evidences of the growing power of nobler ideas in these late cannibals' minds was shown in their treatment of a sick comrade who was taken down the river to his old home near Stanley Pool. This was Bundu, a Mukongo, who had been my cook, and he was then dying of sleeping-sickness, that strange and fearful malady which sometimes decimates whole villages. The Batetela boys fed and nursed him, made his bed for him, watched over him, and when the poor lad died they helped to bear him to his lonely grave. Then they silently walked down to the steamer, tears streaming down their black faces, and solemnly said that poor Bundu had gone to his own country at last. Their language has no word for home.

A great surprise awaited them at Stanley Pool in the shape of the first locomotive they had seen. They promptly named it "steamer on land," and stood watching it with staring, wide-open eyes, making sundry comments and ejaculations, ending with—"What wizards these white men are!" When we had boarded the train, their alarm was such that it was all I could do to quiet them; and, when an accident occurred, making it necessary to telephone for another engine, Kondola senten-

tiously remarked that after all even the white man could not make an animal that would not stop. When the other engine steamed up, Kondola exclaimed—"See, his brother has come to help him."

At Boma, the capital of the Congo, I sought the permission of the Governor-General to take the boys to America. My request was officially granted, with the pleasantry on the part of His Excellency that it seemed to be somewhat more difficult for an American to get Africans to his country than formerly.

It was with some misgivings that I faced the next three weeks on the Atlantic, since Livingstone's servant had become crazed at the marvels of the deep when the great explorer attempted to take him to England. But these boys had already traveled a thousand miles on a river steamer, and I believed all would go well. In this I was not disappointed. I was greatly entertained by their remarks about the wonders of the great ship. We had with us a number of wild animals, which I consigned especially to the boys' care. They managed to get them all alive to Europe save the chameleons and a little green monkey. The latter drank sea water and died, and the little Africans wept over him sorely, and conducted a funeral service for him before they consigned his body to the deep.

As no city of any size had ever before been seen by the young Negroes, I watched their conduct with keen interest as we drew near Antwerp. As we came in sight of the towers, the spires, the great buildings, the cathedral, ship after ship lining the quay, bells ringing, whistles sounding, all the roar and rattle of the complex noises of metropolitan life greeting the ear, the boys, late from the dark recesses of inner Ethiopia, stood entranced. The passengers crowded about them to see the effect. Their eyes grew bigger, and Kondola exclaimed, "Oh, we must be at Heaven now!" Kassongo asked, "Master, why do the white men leave all this to come to our land?"

In Antwerp the Irish landlady of the Queen's Hotel found lodgings for the strangers and her genial Celtic soul warmed to the naif little fellows, and she took good care of them. The King's Government duly confirmed the Governor's permission, and constituted me their legal guardian. In Belgium the boys received many visitors, among them a famous artist, who exclaimed on seeing Kondola's extraordinary physiognomy: "Why, he is so black that he is blue, and so ugly that he is beautiful!"

Our journey across the Atlantic was uneventful. The most exciting incident in their career occurred in New York. It was in February and bitterly cold, with a deep snow and a blizzard raging. The boys were taken to the home of a friend of mine in the city, while I tried to find them lodgings for the night. A gentleman of my acquaintance recommended to me a lodgings-keeper near Madison Square. I took the boys there after dark, but found the proprietor out. The janitress promised to keep them in the hall until he came.

Imagine my dismay on returning after a half-hour to find the door shut and the house darkened. After several pulls at the bell, the door opened slightly, and a gruff voice demanded, "Who's there?" I replied that it was the gentleman who had brought the little Africans there a short while before. The reply came back: "I put 'em out—I don't want any niggers here!" It was nearly nine o'clock, and I sought the nearest policeman. Then I went to my friend and asked him to go to the chief of police and to send the alarm over the city. I immediately began the search myself. Street after street was explored with more minute care than any of the paths in Africa. Lost in New York! Fresh from the tropics, not speaking a dozen words of English, what would become of them? What a contrast to the effusive hospitality of many an African chieftain or humble native to me when a stranger alone in the wilds of the Kasai! For three hours I tramped the streets until, under the facings of a fruit-dealer's stand, before a window where they saw familiar bananas, I found them. We caught sight of each other about the same time, and the boys darted out, exclaiming, "Fwela, is that you?" Kassongo said, "Is it not a great city, Master? We would not go far away, because we feared we should be lost; in the morning we thought you would find us."

While I went to deliver a lecture elsewhere, I left the Africans in charge of the Thornwell Orphanage in South Carolina. When I returned, I found that a general pilgrimage to

MR. VERNER AND THE BATETELA BOYS

In Central Africa, before the boys were Americanized

Kassongo Kondola

THE BOYS IN ALABAMA A FEW YEARS LATER

see Kassongo and Kondola from all over the county had been taking place, and they had caused a great sensation. At last in Columbia, the little fellows were the recipients of many attentions, and they were sent to live with our butler, whose house was a sort of Mecca for the colored people of the whole city for a month. I decided to carry them to school to Alabama, and they are now at the Stillman Institute at Tuskaloosa.

Comparatively few of the type of these boys were brought to this country in the course of the slave trade. In order to make the test of their capacity for training as thorough as possible, I intend to let the education of these boys proceed, even to the university and to some special education, if their progress and promise warrant it.

The progress of the lads has been extraordinary. They can now read and write; they know elementary geography and arithmetic quite well; they can write letters; they have professed Christianity; and they are of sound moral character. They are faithful workmen on the farm, and can use the ordinary mechanical tools fairly well. One is leading his class with an average of 93 in scholarship, and the other is not far behind.

I hope ultimately to secure a concession of land for them from King Leopold of Belgium, that they may return to elevate their people.

LIFTING UP THE LIQUOR SALOON

BY

WILLIAM H. TOLMAN, PH. D.

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WHAT is needed is a substitute for the saloon; for it cannot be abolished. Its evils must be minimized and as far as possible negatived. It must be made possible for the community to satisfy its cravings for companionship and recreation under less harmful conditions. There already are some such saloons in the United States, but it has remained for England to point out in a common-sense, concerted and practical effort how the objectionable features of the saloon may be removed.

In 1896, supported by the Bishop of Chester and under the management of Major Craufurd, the People's Refreshment House Association was incorporated for the object of promoting temperance by the trial of various methods, best calculated to reduce excess in the consumption of alcoholic liquors. The promoters recognized the dangers incident to the disagreeable but lucrative trade of liquor selling. The underlying principle of the Association is the elimination of private profit. They knew that it was to the interest of the saloon keeper to extend his custom, to sell as much liquor as he can and to resist any change in the law that interferes with his privileges and his profit. His livelihood depends upon pushing his business.

The Lord Bishop of Chester is the president of the Association, with five vice-presidents: the Right Hon. the Earl of Stamford, the Lord Bishop of Rochester, General the Right Hon. Lord Chelmsford, the Right Hon. Lord Kinnaird, his Eminence Cardinal Vaughan, and an Executive Council of thirteen. The Association leases existing public houses, acquires new licenses where a growing population obliges the magistrates to create new ones, and establishes canteens and refreshment bars at large public works, collieries and elsewhere.

The first license was granted on October 1, 1897, to the Sparkford Inn, Somerset. It is located in a small village, and its receipts were mainly from roadside customers. A fortnightly stock-market, held on the grounds, increased its revenue considerably. Very few changes were made in the house and its identity as a village inn has been maintained. The price of drinks is hung conspicuously in the bar and in the parlor. The liquors are not exposed with a view to attracting customers, but the food stuffs and non-alcoholic drinks are

AT THE FOX AND PELICAN, GRAYSHOTT

prominently displayed. Special attention is given to making tea, coffee, and cocoa most attractive and palatable. As far as possible, tea is freshly made for every customer. Fresh filtered drinking water in glasses is always at hand in the tap room and in the parlor. Here, as at other times, every effort is made to push the sale of food rather than of liquors. The strategic point is the manager. He receives a fixed salary paid by the Association, and he is allowed no profit whatever on the sale of alcoholic drinks. Thus all temptation to increase the sale of them is removed. But he is allowed a profit on all food and non-alcoholic drinks. He must manage his inn as a house of refreshment, and not as a mere drinking bar. He must make his food and non-intoxicants just as accessible as beer and spirits. He must be most strict in the observance of every clause of the license law as enacted by Parliament. He must never forget that he is a servant of the public, and as such he must study the comfort, the well-being and the health of his customers. His house must be scrupulously clean, the rooms comfortably arranged, well-warmed in winter and well ventilated. The Association's capital is offered to the public in five-dollar shares. Dividends are limited to five per cent. a year out of the profits. Any surplus, after provision is made for a reserve fund, is devoted to local or general objects of public utility. In 1900 the surplus profit of $500 was devoted to a fund for a fountain, for a district nurse, a light on the village green, a horticultural society, a parish room, a debt for a bathing place and a school.

OUTSIDE THE FOX AND PELICAN

On January 1, 1902, there were twenty-two inns managed by the Association. Among them were the Rose and Crown in Peterborough, the Red Lion, Exeter, the Dog and Doublet, in Stafford, the Norfolk Hero in Stanhoe, the Plume of Feathers in Dorset, and the Rose and Portcullis in Somerset.

As an outgrowth of the People's Refreshment House Association, the Public House Trust was organized. In 1900 it was decided

by the authorities that a new saloon was needed in the mining village of Broom Hill, and the license was granted to Lord Grey. He offered it to the Refreshment House Association, who accepted it, at the same time informing the local authorities that if they should grant any new licenses the Refreshment House Association would accept and manage them as a trust in the interests of the community. This plan received such favorable notice through the press that it was decided to form a Central Public House Trust Association, with the object of establishing a Public House Trust Company in every county. The administrative details and the general policy are almost identical with those of the People's Refreshment House Association. Earl Grey is the president, with the Bishop of Chester and Joseph Chamberlain as vice-presidents, and an Executive Committee of seven. So successful was the Trust that in February of this year ten companies had been organized in England, nine in Scotland and one in Ireland. Seventeen organizing committees were ready to proceed with the formation of new companies, and preliminary meetings were being arranged in nine districts.

The first house built expressly for this Trust was the Grey Arms in Northumberland. It is set back so as to be free from the road traffic; it is entered by two separate doorways, one opening into the inn proper and the other in to the bar. On the right of the entrance hall are the bar, the parlor and the billiard-room and on the left is the dining-room. All the rooms are cosily and attractively furnished. Numerous bay windows lend picturesqueness to it. The color scheme of the interior is lighted up with mosaics and enameled tiles, thus forming a pleasing contrast to the oak wood-work. Upstairs there is a large tea room daintily set with tables and furnishings. The two rooms adjoining this can be thrown into one, should the occasion require accommodations for a private banquet. The grounds have been made into a pleasure garden for the public, and coaching parties and cyclists find ample provision in the stables and the storage sheds.

This new movement has been in operation long enough to establish its success. The secretary writes that one public house, the Plume of Feathers, was at first avoided after the Trust took it in hand; but it is now doing a better trade than it did under the old system. It is clean and well conducted, whereas it was formerly dirty and disreputable. The manager supplies about twenty workmen with tea on their way to work in the morning.

In Scotland, one of the oldest houses is managed by the Trust, after repeated refusals by the Justices to grant a license for the old type of public house. Persistent efforts are made to minimize drinking. The house is closed at nine, an hour before the usual time. The liquors are of the best quality, and there are no temptations to linger about the house, but there are ample inducements for rational recreation outside, all of which were provided from the profits of the saloon. These profits amounted to $1,872 and were expended on the public utilities of a bowling green, a building including a reading room, a library and a billiard room, and gifts toward electric lighting of the village, a singing class and a football club. The secretary writes, "There is no reasonable doubt that the repressive influence regarding the consumption of liquor on the one hand and the provision of counter attractions on the other are exercising a most wholesome effect on the village."

December 31, 1901, fourteen Trust Companies of the Central Trust had authorized 635,000 shares at £1 each, of which 392,000 shares were offered for subscription. Of this latter number 138,198 shares had been taken up.

The Northumberland Public House Trust Company, Ltd., issued its prospectus May 16, 1901. The high character of its organization is indicated by its officials, among whom are the Lord-Lieutenant of the County, Chairman of the County Council, the Mayor of Newcastle, the Principal of the College of Science, President of the Northumberland Miners' Association, and the Chairman of the Newcastle Branch of the Wholesale Coöperative Society.

From this summary of the English movement, it will be seen that it is well under way and is commending itself to all classes. If now the temperance people in America would get together and act in unison, taking conditions exactly as they exist here and follow out a constructive programme, using the English movement as an object lesson, there is no reason why a divorce between the saloon and politics could be brought about, and the evils of the saloon greatly lessened.

HOW CABLES UNITE THE WORLD

THE GROWTH OF VAST SYSTEMS OF SUBMARINE TELEGRAPHY, WITH THE STORY OF RECENT ACHIEVEMENTS IN SWIFT AUTOMATIC TRANSMISSION

BY

DONALD MURRAY

MORE than $15,000,000 were spent lately by the Eastern Telegraph Company (English) in laying a cable of 15,000 miles from England to Australia by way of the Cape of Good Hope—more than half way round the globe and nine times longer than the first Atlantic cable; but the fact went almost unnoticed. Two cables, each about 8,000 miles, and costing more than $10,000,000 each, are about to be laid across the Pacific. Compared with these, the Atlantic cables of only 2,000 miles and costing about $2,000,000, now seem short; and it is with astonishment that we read now of the doubt and difficulty of the laying in 1851 of the first successful cable, about 25 miles long, across the English Channel. Since then more than $200,000,000 have been spent on ocean cables, and as Marconi's bold experiments in wireless telegraphy have caused some remote fear among those who have "all their money at the bottom of the sea," it is opportune to summarize the astonishing changes that have taken place since the days of Mr. Cyrus Field's activity in successfully laying the first Atlantic cable.

Cable communication was first made possible by the discovery of gutta-percha, which led to the construction of a few short cables across rivers; and these in turn led to the cable across the English Channel, after six years of discussion, experiment and failure. Other short cables followed, and then the first Atlantic cable was laid in 1858, about 2,000 miles long and from two to three miles deep. Unfortunately it soon broke down. Not till 1865, after most disheartening failures and losses, was the art of making and laying cables mastered. Thanks chiefly to the indomitable energy of Cyrus Field and the scientific genius of Professor William Thomson (now Lord Kelvin), obstacles were overcome and the second and third Atlantic cables were laid in 1865 and 1866 by the *Great Eastern*. At once a period of great activity in the laying of cables set in, especially about 1870, when the British Government purchased the British land telegraph lines. The capital thus liberated, amounting to about $50,000,000, was largely reinvested in submarine cables. It is said that to this fact, as much as to the scattered nature of the British Dominions, it is due that the cables of the world are so largely owned by British capital.

In 1872 a number of small competing companies with lines through the Mediterranean were consolidated into the Eastern Telegraph Company, and in the following year the Eastern Extension, Australasian, and China Telegraph Company was formed by the amalgamation of companies owning cables further East. Since then the Eastern, Eastern Extension, and Associated Cable Companies have become practically one immense organization, the "Eastern Company" controlling about 100,000 miles of cables, or about half the total length of cables in the world. Meanwhile the Atlantic cables, steadily increasing, also consolidated until at present, excluding the French cables, there are virtually two great competing companies, the Anglo-American and the Commercial Cable Company (started in 1884). There are now fifteen cables across the Atlantic, laid at a cost of about $30,000,000. The first three, laid in 1858, 1865 and 1866, are "dead"; three others are in delicate health; the remaining nine are in perfect condition, and likely to remain so for at least twenty or thirty years.

THE AGE OF GIANT CABLES

Recently another great cable-laying boom has set in. France proposes to connect its colonies by a system under its own control. A German cable has recently been laid from

Emden in Germany to New York via the Azores, which works in conjunction with the Commercial Cable Company. The Commercial Cable Company has recently laid its fourth cable connecting New York and London, via Canso, the Azores, and Waterville in Ireland.

The Eastern and its associated companies own a marvelous network. Practically all the cables from Land's End in England through the Mediterranean to Suez, on through the Red Sea to Aden, across the Indian Ocean to Bombay, thence linking into the system Madras, Singapore, Hong-Kong, Manila, Australia and New Zealand, belong to them. So also do practically all the cables which now surround Africa, and many of those which cross the ocean and follow the coastline of South America. To such an organization the laying of 15,000 miles of cable from England to Australia at a cost of over $15,000,000 was comparatively easy. Yet this great line, the last section of which was completed in February, may be traced from Land's End in England to Adelaide in South Australia, a distance which a modern Atlantic liner would take six weeks to steam over.

In the Pacific, the Commercial Cable Company is arranging to lay a $10,000,000 cable about 8,000 miles long, from San Francisco to Honolulu, Guam, and Manila in the Philippines. A still more extraordinary cable is being constructed jointly by the Governments of Great Britain, Canada and Australia, across the Pacific from Vancouver to Fanning Island, Fiji Islands, Norfolk Island, and then branching to New Zealand and Australia. It will be about 8,000 miles long, and the 3,600 mile stretch from Vancouver to Fanning Island will be the longest single section in the world. And in connection with Pacific cables, it is surprising to note that practically all the deep-sea cables of the world are in the hands of the English-speaking nations.

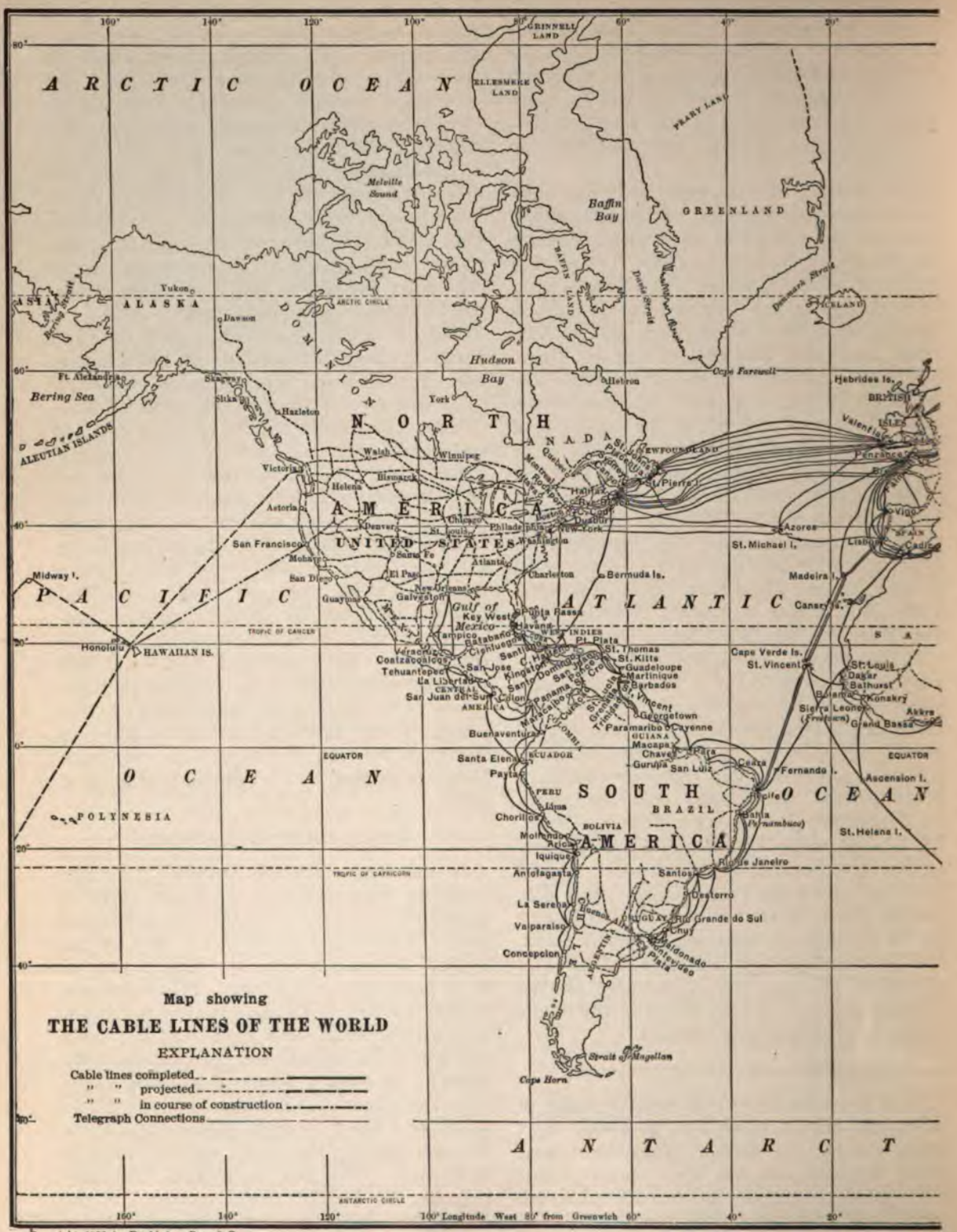
THE FINANCIAL POINT OF VIEW

In all there are now about 200,000 miles of submarine cables, enough to go about eight times around the Earth. They have cost about $200,000,000, but their market value is considerably higher, as deep-sea cables are solid and profitable investments. Of the total mileage, the Eastern and its associated companies control practically half, or, to be precise, 99,262 nautical miles of cables, with 161 stations, and 11 cable steamers. All told there are 42 cable steamers in the world, including those owned by the cable construction companies and Governments, with gross tonnage of about 65,000 tons. There are about 1,700 submarine cables ranging from a quarter of a mile to 15,000 miles. Nearly all the short lines belong to Governments, but although only about 420 cables belong to private companies, these include at present all the deep-sea cables and about ninety per cent. of the total length of cables in the world.

The life of a deep-sea cable, aside from injuries by ships' anchors, rocks, sharks, saw and sword-fish, has been variously estimated at from thirty to forty years. Sharks occasionally bite cables and leave some of their teeth embedded, and saw-fish and sword-fish attack them, especially in tropical waters, but on "the great gray level plains of ooze" two miles or more below the surface, cables seem to be almost imperishable. In shallow water they are more exposed to damage. Deep sea cables weigh from one to one and a half tons per mile, but the portions lying in shallow water are so heavily armored as to weigh from ten to thirty tons per mile. Yet last year the ocean cables of the Commercial Company were severed by ships' anchors five times. In the Firth of Forth in Scotland no less than thirteen ship's anchors were once found entangled in a length of four miles of cable.

RATES, CODES, AND CIPHERS

In the early days the Atlantic Telegraph Company started with a minimum tariff of $100 for 20 words and $5 for each additional word. Later this was reduced to $25 for ten words. It was not till 1872 that a rate of $1 a word was introduced. This word-rate system proved so popular that it was soon adopted universally and since 1888 the cable rate across the Atlantic has been continuously down to 25 cents a word. Rates now range from the 25-cent tariff across the Atlantic to about $5 a word between England and Peru. The average for the whole world is roughly $1 a word. This the Commercial Company proposes to charge from America to the Philippines, as compared with the present rate of $2.35 by the circuitous route across the Atlantic, through the Mediterranean, the Red



Map showing

THE CABLE LINES OF THE WORLD

EXPLANATION

Cable lines completed
" " projected
" " in course of construction
Telegraph Connections

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ARCTIC OCEAN
SPITZBERGEN
NOVA ZEMBLA
Kara Sea
NEW SIBERIA
North Cape
SIBERIA
ARCTIC CIRCLE
RUSSIAN EMPIRE
EUROPE
Bering Sea
Sea of Okhotsk
Kamtschatka
Tomsk
Krasnoyarsk
Omsk
Irkutsk
L. Baikal
Tashkent
L. Balkash
Aral Sea
Astrakhan
Caspian Sea
Black Sea
Constantinople
Odessa
Kharkof
Moscow
Nijni Novgorod
Warsaw
Stockholm
Christiania
Copenhagen
Hamburg
Berlin
Paris
London
Vienna
Budapest
Rome
Madrid
Lisbon
Malta
Tripoli
ALGERIA
TRIPOLI
Alexandria
Cairo
EGYPT
Port Said
Suez
Red Sea
Jeddah
Mecca
Suakin
Aden
Arabian Sea
Tehran
PERSIA
Fao
Bushire
Jask
Karachie
Kabul
AFGHANISTAN
Calcutta
Bombay
Madras
Bay of Bengal
CEYLON
Colombo
Mahe
Zanzibar
Victoria Nyanza
ABYSSINIA
SOUDAN
SAHARA
NIGERIA
Lagos
Libreville
Sc. Thomas
KONGO FREE STATE
Loanda
Benguela
Mossamedes
Mozambique
Madagascar
Antananarivo
Swakopmund
Lourenco Marquez
Delagoa Bay
CAPE COLONY
Durban
Cape Town
Cape of Good Hope
TRANSVAAL
TROPIC OF CAPRICORN
MAURITIUS I.
REUNION I.
SEYCHELLES IS.
ASIA
MONGOLIA
CHINESE EMPIRE
TIBET
NEPAL
Pekin
Tientsin
Vladivostok
Japan Sea
SAKHALIN I.
KURILE IS.
Tokyo
Yokohama
Woosung
Nagasaki
Shanghai
Fuchow
Amoy
Canton
Hongkong
Ha Fong
Hue
Saigon
Bangkok
Manila
PHILIPPINE ISLANDS
GUAM
Singapore
Penang
Sarawak
BORNEO
Celebes
Macassar
JAVA
Batavia
Banjoewangi
Port Darwin
Broome
NEW GUINEA
NEW CALEDONIA
FIJI IS.
TROPIC OF CANCER
PACIFIC OCEAN
EQUATOR
INDIAN OCEAN
AUSTRALIA
Perth
Albany
Adelaide
Melbourne
Sydney
Bundaberg
Brisbane
NORFOLK
Auckland
NEW ZEALAND
Wellington
Georgetown
Hobart
TASMANIA
ANTARCTIC CIRCLE
Longitude East 80° from Greenwich 100°
ENGRAVED BY BIRNEY & CO., NEW YORK.

Sea, across the Indian Ocean and on to Manila via Hong-Kong. Even from New York to far-away New Zealand the rate is now only about $1.50 per word. The cost of cabling, however, is greatly influenced by "coding," a system by which business men use secret words for commercial messages. A cipher, on the other hand, is a system of secret letters or figures used for secrecy by Governments. Practically Governments are the only users of ciphers. "Coding" has developed to an extraordinary degree of perfection. One code word will frequently stand for ten or fifteen words, and there are instances where one word has been used to represent over 100 words. Practically all commercial cablegrams are coded, and nearly all departments of commercial and industrial life nowadays have their special codes.

THE MEN WHO OPERATE

Cable operators have been called "the aristocrats of the telegraph profession." Owing to the importance of cablegrams, the seriousness of errors, the difficulty of avoiding errors when transmitting the jargon of coded messages, and the fact that cable messages, unlike telegrams on land, have to be retransmitted through four, eight and even a dozen successive stations, each retransmission adding to the danger of error, cable operators have to be picked men of intelligence and training. Their wages are consequently high and their life desirable. The drawbacks are loneliness in many places and bad climate in such places as the West Coast of tropical Africa. Yet the station buildings are large and there is plenty of room. Cable companies also find it pays to consult the comfort of their employees. At Port Darwin in Northern Australia, for example, there is an extensive establishment including quarters for the staff, bathroom, gymnasium, and other conveniences.

St. Vincent, however, one of the Cape Verde Islands, off the coast of Africa, is a treeless wind-swept island less than ten miles square with a climate both tropical and bad. St. Helena is more healthy, but it is a little dot of land ten miles by eight, and a thousand miles from anywhere. Aden, at the mouth of the Red Sea, is a barren cinder heap where the temperature in summer runs up to 104 degrees. Wintry Wei-hai-wei is a significant contrast. But probably the most unique cable station in the world is that at Cocos or Keeling Island, one of the stations on the Eastern Company's new cable to Australia. This group of islets was selected by Darwin as the typical coral atoll. It is said to be extremely healthy. The temperature never falls below seventy-six degrees and never rises above eighty-four. The population consists of a few hundred Malays and a handful of Europeans. According to all descriptions it is one of the "Summer isles of Eden." But it is significant that the operating staff recently sent out there took a year's store of provisions and a supply of fire-arms. Between this lonely station and the Broad Street office of the Commercial Cable Company in the heart of the financial district of New York there is a greater contrast than usually falls within the scope of a single profession.

RUSHING THE CABLES

The cost of deep-sea cables, about $2,500,000 for a modern Atlantic cable, makes it vitally important to get as much work out of them as possible. In the first place the transmission time of messages has been greatly reduced. Formerly from many parts of the world it took five or ten hours to deliver a cablegram where it now takes from thirty to sixty minutes, and across the Atlantic the companies, for stock exchange purposes at any rate, send a cablegram and get a reply in two or three minutes. In the second place, where traffic is heavy, speed of transmission of the signals has been greatly increased. Across the Atlantic and on three or four of the busy lines of the Eastern Company the art of cable telegraphy has been highly developed.

On the first Atlantic cables the speed was about seven words a minute in one direction only. The speed of recent Atlantic cables is as high as from forty to forty-five words a minute in both directions—that is, from eighty to ninety words a minute. In other words, compared with the early days, the speed and therefore the value of the best cables has been multiplied more than ten times over by means of some of the most ingenious and delicate machinery in modern industry. On the first Atlantic cable it was found that, using land telegraph methods of signaling, the speed was only one or two words a minute. The first great forward step was to send ex-

ceedingly feeble currents and to use extremely sensitive receiving instruments. Lord Kelvin's mirror galvanometer supplied the instrument needed. By this means the speed of the early Atlantic cables was raised to seven or eight words a minute. Subsequently, when heavier cables were laid, the speed was increased to as much as twenty words a minute.

GREAT IMPROVEMENTS

In 1870 Lord Kelvin perfected his siphon recorder for working long cables, and it at once supplanted the mirror instrument, as it worked just as well with feeble currents, gave a written record of signals received, and enabled one man to do the work of two. An exceedingly light coil of fine wire (in shape and size like the long, narrow O which would be obtained by winding several hundred turns of fine silk thread round the palm of the open hand) is delicately suspended between the two poles of a powerful magnet. As the electric signals from the cable flow through the coil of wire, it swings round under the influence of the magnet, back or forward according as the current is positive or negative. The motions of the coil are transmitted by silken fibres to a little glass siphon about as thick as a needle and three or four inches long suspended so as to swing with perfect freedom. One end of the siphon dips into a pot of ink and the other end hangs close above a moving strip of paper. The signals are so feeble that if the end of the glass siphon rested on the paper it would not move at all, but by causing the siphon to vibrate continuously against the paper the free motion of the siphon is not interfered with and the ink is spluttered upon the paper so that the siphon traces a line of very fine dots and thus records the signals transmitted through the cable. This instrument, though crude at first, has gradually been perfected. It is now the most important part of modern cable apparatus.

The next improvement, undoubtedly the greatest ever made for increasing speed, was the invention of a successful system of "duplexing" cables by Dr. Alexander Muirhead and Mr. Herbert Taylor in 1875. This invention rendered it possible to send messages through a long ocean cable both ways simultaneously. In 1878 the Direct United States cable across the Atlantic was successfully duplexed and a speed of sixteen words a minute obtained each way at the same time. Duplexing cables has now become such a fine art, chiefly through the labors of Dr. Muirhead, that the capacity of cables, and therefore their commercial value, has been practically doubled. Since 1875 about 80,000 miles of ocean cables have been duplexed, almost entirely on the Muirhead system. The invention is too technical to describe.

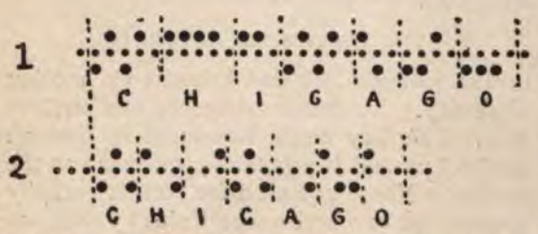
The increasing traffic across the Atlantic and the pressure of competition led next to an increase in the size of the copper "core" which conducts the electric signals. The resistance of a wire delays the electric current and therefore the speed. By doubling the size of the copper core the resistance is halved and the speed greatly increased. The copper wires used for telegraphy on land weigh about 200 pounds per mile. In 1894 two cables were laid across the Atlantic, one for the Commercial Cable Company and the other for the Anglo-American Company. The copper core of the former weighed 500 pounds per mile, while the latter weighed no less than 650 pounds per mile or as much as three ordinary land wires. The result was that the speed obtained with these two cables was as high as forty to fifty words a minute, or working duplex from eighty to ninety words a minute. On previous Atlantic cables twenty-five to twenty-eight words a minute was the maximum, each way. Owing to the reduction of rates the benefit of this tenfold increase of speed since the early days has gone almost entirely to the general public.

THE INEVITABLE AUTOMATIC

The increase in speed brought up another difficulty. No human operator can send so fast. The key used for signaling through cables by hand is practically the same as the ordinary Morse key used for land telegraphy except that two keys are used side by side, one to send positive signals and the other negative signals, the letters of the alphabet being indicated by various arrangements of the two kinds of signals. First-class cable operators can send as many as thirty words a minute for a few minutes, but a sustained speed of twenty words a minute when working by the hour is regarded as very good. To take full advantage of the speed of a modern Atlantic cable, therefore, it is necessary to have some auto-

matic method of transmitting. The advantages of automatic transmission are higher speed, greater uniformity of signals, more legibility, and fewer mistakes.

The method adopted is simple and beautiful, a modification of the Wheatstone system. The message is first punched as a series of holes in a paper tape. This perforated tape is then run through an automatic transmitter and by means of a system of small levers the required signals are transmitted at any desired speed. The operator has a wooden stick in each hand with which he strikes one or other of the three keys of the small perforator directly in front of him. One key punches a right-hand hole, another key a left-hand hole, and the middle key makes a space. In this way the cablegram before him is transmitted at the rate of about twenty words a minute into a perforated tape. From the perforator the tape runs into an automatic transmitter, or "auto." There is a a row of small central holes in the tape, and on each side is a row of larger holes. The latter represent the message. A small star wheel in the "auto" engages with the central line of holes and feeds the tape along at a uniform rate. A couple of small steel rods about the size of a knitting needle one for each of the two rows of message holes continually vibrate against the paper. When either of them enters a perforation in the paper a lever connected with it moves and makes an electric contact sending a short, sharp signal into the cable.



SAMPLES OF THE PERFORATED TAPE USED FOR TRANSMITTING MESSAGES THROUGH THE AUTOMATIC TRANSMITTER

No. 1 shows the word "Chicago" punched in the ordinary cable alphabet, and No. 2 the same word in the new cable alphabet showing equal number of letters and greater brevity and therefore increased speed

SOME NEW WONDERS

Recently several still more wonderful inventions have been perfected. There is good reason to believe that it is now possible to work a typewriter in New York by playing on a typewriter keyboard in London, and *vice versa*.

The little tape perforator in the first machine of the series has three keys. These have to be struck on the average four times for each letter, and much practice is required to become skilful in using it. Several tape perforators with ordinary typewriter keyboards have been invented. The success of a machine of this kind will mean that cable messages will be transmitted by simply playing on a typewriter keyboard, the striking of the keys perforating the transmitting tape, which then runs through the "auto," which sends signals through the cable to the other end, where they are written in ink by the siphon recorder. It is at this latter point that has lain the great difficulty that has baffled cable inventors for years. By the time that an electric signal has passed through a long section, say 1,000 miles, of ocean cable, it has become so feeble that it can only be recorded by the extremely delicate mechanism of the siphon recorder. It has not been possible, until recently, to retransmit automatically into another section. On land, relays are used. For instance, messages from New York to Chicago are automatically repeated at Buffalo or Meadville, and by automatic repeating every 600 or 800 miles, it is an everyday occurrence to telegraph direct between New York and San Francisco. A relay capable of performing similar work for cables has been a dream of cable engineers and inventors for years, and in default of such an instrument "human relays" have been employed, that is, at the end of one section of a cable an operator takes the paper tape record of a cablegram as it comes from the siphon recorder and retransmits it.

CABLE RELAYS HAVE ARRIVED

But the cable relay is now an accomplished fact. The only hope of constructing such an instrument was to utilize the siphon recorder. One difficulty has been that the movements of the siphon, as shown by the paper records, have been up till recently most irregular. There has been what photographers would describe as "lack of definition" about the signals, rendering it hopeless to attempt to relay them automatically by machinery. The first thing to do was, therefore, to straighten and sharpen up the signals a bit, and a very able

THE EASTERN EXTENSION CABLE STATION AT SHARP PEAK

A rock at the mouth of the Min River in China, opposite Formosa. Buildings in succession from left to right are lineman's quarters, Chinese Government operators, office, company's operators, company's senior clerk

group of cable engineers, including Mr. H. A. C. Saunders, Electrician-in-chief of the Eastern and its associate cable companies and his assistant Mr. Walter Judd, also Dr. Muirhead, inventor of the cable duplex, and Messrs. Brown and Dearlove succeeded in sharpening them. They secured very regular signals, usually described as "square signals." This result was obtained by means too technical to be described here, but the chief device used is known as an "inductive shunt." Having squared the signals, it was now possible, though by no means easy, to construct a cable relay. Two have recently been perfected. One is known as the Brown and Dearlove relay, the

EASTERN EXTENSION COMPANY'S HONG-KONG OFFICE, EXTERIOR

THE EXTENSION COMPANY'S CABLE STATION AT BACOLOD

A lonely spot on the island of Negros in the Philippines. This supplies a contrast to the Hong-Kong office

Photographed by F. B. Foy

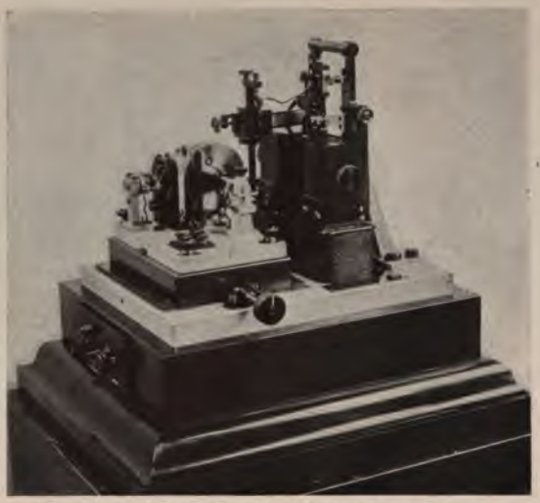
CABLE STEAMER *ANGLIA* LAYING SHORE END OF THE NEW CAPE-OF-GOOD-HOPE CABLE AT ST. VINCENT

Cape Verde Islands, 10th February, 1900. This is the second section of the 15,000-mile cable line to Australia, completed last February

THE EASTERN TELEGRAPH COMPANY'S CABLE STATION AT MALTA
The siphon recorders may be distinguished by the rolls of paper near them

principal inventor of it being Mr. S. G. Brown. The other has been invented by Dr. Muirhead. In both a fine wire terminating in a platinum contact point takes the place of the ink in the siphon of a recorder. The contact point, instead of resting on the paper tape, rests on a rapidly moving metallic surface divided into two parts. In the Brown and Dearlove relay this contact surface consists of a constantly revolving metallic drum or wheel. The siphon with its wire and contact point "skates," as the inventor describes it, with utmost freedom on the periphery of this wheel. The drum, looks like a phonograph cylinder. As the siphon skates upon the right or left half of this drum it makes a positive or a negative electric contact and automatically transmits a corresponding signal with renewed energy into the next section of cable. In the Muirhead relay the moving metallic surface consists of a small plate vibrating rapidly. The result is the same. Able in this way to make definite electrical contacts through a long ocean cable, an operator can easily work, by means of these contacts, local apparatus moved by more powerful currents. In this way both Mr. Brown and Dr. Muirhead have devised perforators which reproduce at the receiving station perforated tape identical with that used for transmitting the message at the sending station. This tape is available for retransmission through an "auto," this plan having the advantage that the signals are retransmitted in as perfect form as the original

DR. ALEXANDER MUIRHEAD
Inventor of the cable duplex, and his remarkable cable relay



THE BROWN AND DEARLOVE CABLE RELAY

A notable invention adopted by the Eastern and associated companies, and now working commercially at Mediterranean stations. This piece of apparatus takes the place of a human being

signals; and, theoretically at any rate, the process may be repeated indefinitely so that it would be possible to send a cable message automatically through a dozen stations from England to Australia. This will no doubt be done in time, but it is a very slow process getting such complicated and delicate inventions into commercial use. It is a question of time and growth. The Brown and Dearlove relay has been adopted by the Eastern Company and has been in commercial use for

A MODERN LONG DISTANCE SIPHON RECORDER

The siphon may be seen like a thin, white thread hanging down to the point where the paper makes a sharp bend. The fine coil of wire is on the same level and about half an inch to the left

A CABLE STATION AT ST. VINCENT

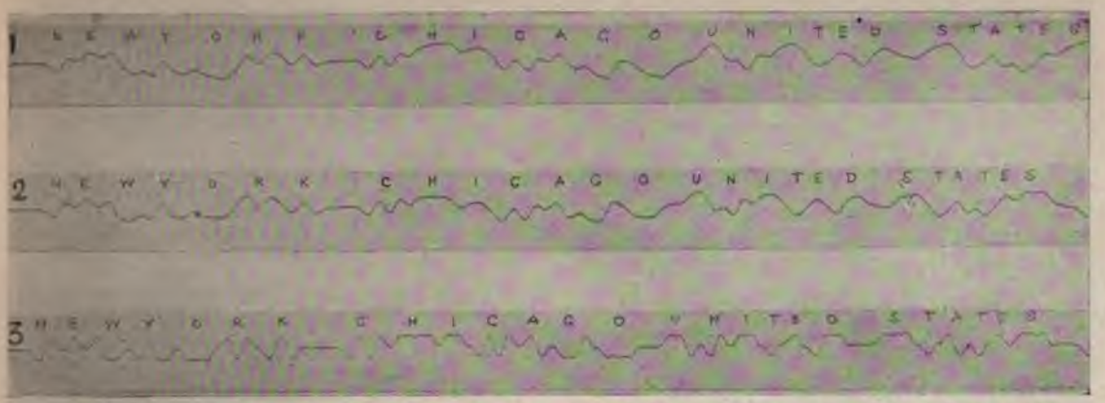
Cape Verde Islands off West Africa. Operating room. In front of operator on left of picture is a cable key for hand sending

some months at Mediterranean stations. Dr. Muirhead's relay has also proved very successful in several long-distance tests.

From this description of cable relays it will be seen that an operator by playing on a typewriter keyboard in London can now produce a perforated paper tape in New York. A machine invented by the writer of this article and described in THE WORLD'S WORK for September, 1901, is so arranged that by simply turning a handle it works a typewriter automatically under the control of a perforated paper tape, something after the fashion of a mechanical piano, at a speed of ninety words a minute. In order that this machine may print messages from a perforated tape produced by the cable relays it is necessary that all the letters shall be of equal length,

AN OLDER FORM OF SIPHON RECORDER

(Lord Kelvin's)



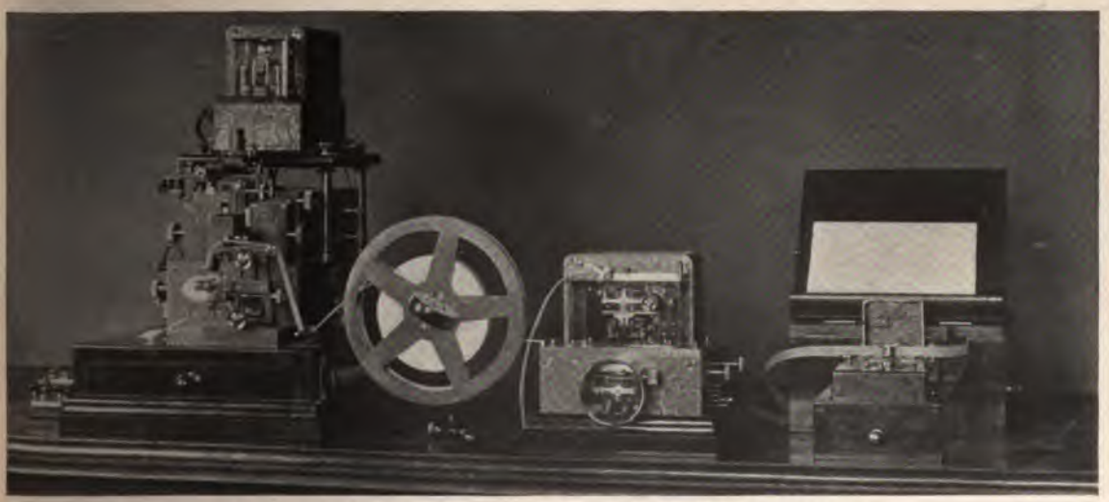
THREE SPECIMENS OF A SIPHON RECORD OF A MESSAGE AS RECEIVED OVER A LONG OCEAN CABLE

The first is an old-time record. The second is a modern record like those of messages across the Atlantic. The third is the latest style of squared-up record, received over the same cable. The remarkable increase in definiteness and uniformity is obvious. It is this latest achievement in cable signalling that has made cable relays possible

and the writer has devised a new cable alphabet that not only fulfils this condition, but is also about twelve per cent. shorter than the cable alphabet at present in use.

Hence it is now possible, at any rate theoretically, automatically to typewrite a cable message across the Atlantic in page form at a speed twelve per cent. faster than the cables can at present be operated. More than this, by the same mechanism it is feasible to operate a linotype or typesetting machine automatically so that the fantastic possibility presents itself of playing on a typewriter keyboard in London and setting type automatically in New York.

It will thus be seen that deep-sea cables have shared in the astonishing revolution caused by the perfecting of automatic machine methods during the past twenty years. And it is in the highest degree improbable that a long record of wonderful human achievement like that which has been described in this article will be brought to naught by any new invention howsoever ingenious or revolutionary. There is room enough in the world for both wireless and cable telegraphy, and indeed Mr. Marconi has already done good service to owners of cables, because his unique feat of signaling across the Atlantic has rendered the cutting of cables in war time useless.



A GENERAL VIEW OF A SET OF MODERN CABLE INSTRUMENTS

On right is tape perforator. In middle is automatic transmitter, and on left is a siphon recorder for receiving the message at the other end of the line. One or two thousand miles of cable are supposed to intervene between this instrument and the transmitter

CORRIDOR OF THE EXECUTIVE OFFICE

THE PRESIDENT'S BUSINESS OFFICE

HOW THE EXECUTIVE AFFAIRS OF THE COUNTRY ARE MANAGED — AN EXPLANATION OF THE WORK DONE AT THE WHITE HOUSE

BY

WALDON FAWCETT

THE removal of the Executive offices from the White House to the separate building projected may enable the President of the United States and his assistants to transact their business more comfortably than heretofore, but no more thorough business methods could be devised than those now employed. Indeed, the rapidly increasing volume of affairs handled within the meagre Executive workshop of the past century has resulted in a system which for general compactness has few parallels, even among business corporations.

The Executive offices now occupy, on the second floor of the White House, a space not much larger than the vestibule in many a New York office building, yet probably in no equal area anywhere is so vast or so important a volume of business transacted every working day. Some of these offices are never closed and very few employees can keep regular office hours. The grist poured in every twenty-four hours includes over a thousand letters, hundreds of telegrams and cablegrams and dozens of commissions and other documents requiring consideration and signature. Moreover, there are hundreds of visitors every day, each asking a personal interview.

Every letter received at the White House, whether autograph epistle from a European sovereign or the almost illegible scrawl of some juvenile autograph seeker, is carefully filed and doubly indexed. The outgoing and incoming telephone, telegraph and cable messages are recorded for possible future reference; hundreds of newspapers and magazines are perused daily, and clippings made of articles about the President or his policies and the cuttings

pasted in great scrap books; full memoranda are tabulated regarding every commission issued, and notes made of Presidential engagements ranging from receptions of delegates to long journeys away from the capital. Yet no member of the staff ever appears to be in a hurry and the quiet atmosphere is in marked contrast with the constant rush of many a private business office. The superficial observer thinks this manner of doing business antiquated.

Aside from the President's salary and the expense of keeping the White House in repair, it costs the Government only about $65,000 a year to operate the establishment. Of this amount $50,000 is expended in the salaries of the thirty men on the Executive pay-roll. These range from the Secretary-to-the-President, with a salary of $5,000 a year, down to messengers and doorkeepers whose pay is in some instances perhaps one-tenth that sum. This remaining $15,000 defrays all the other expenses,—the replacing of worn-out office furniture, typewriter repairs, stationery, and feed for the half-dozen horses in the White House stables. Of course the Executive office has the benefit of many economies beyond the reach of the thrifty merchant. For instance, all official mail is franked, saving approximately $20 a day. Special telegraph and cable rates are also secured.

The actual business revolves around the Secretary to the President and the assistant secretaries. Outside of perhaps half a dozen letters a day these men now handle the entire Presidential correspondence. As in the United States Steel Corporation and other great industrial corporations the President merely outlines general policies. The work of carrying out his ideas is left to subordinates. The Secretary to the President accordingly is now regarded in Washington as an official of fully as much consequence as a Cabinet member and the formerly almost unheard-of positions of the assistant secretaries are correspondingly important.

There is no "dull season" at the White House. There is, it is true, a slight increase in mail during Congressional sessions, and an important address by the President, a message to Congress or the announcement of a new line of policy in national affairs will bring hundreds of letters of advice, comment and criticism.

Photographed by Clinedinst

THE MAIN OFFICE, WHITE HOUSE

The President's mail is transferred from the Washington post-office to the Executive Mansion by a White House employee who makes three or four trips a day, carrying a sack of outgoing mail on each journey to the post-office. The letters upon arrival at the Executive offices pass first to a clerk whose sole duty is to open the envelopes and unfold the missives.

A second clerk assorts the communications. Hundreds of letters are sent to the White House which should have been addressed to one of the Governmental Departments; these the second clerk weeds out. The rest of the letters, with the exception of the few which are to be placed in the President's own hands, are distributed among the secretaries. Each of these is entrusted with certain lines of work and all communications within their province. For instance, Assistant-Secretary William Loeb, jr., takes charge of the "crank letters."

WHITE HOUSE STENOGRAPHERS

These embrace all sorts of communications, from the appeals of persons who desire the President to aid them in paying off mortgages or seek to have him accept pet live stock as tokens of esteem to the vicious threatening letters, which, if deemed worthy of notice, are turned over to the Secret Service. In this same general category are innumerable "begging letters," every one of which bearing the slightest evidence of worthiness is turned

Photographed by Clinedinst

CLERKS AWAITING THE ARRIVAL OF THE MAIL AT THE WHITE HOUSE

over to some charitable organization in the city or district from which it emanated.

The President usually writes autograph letters to his personal friends. In addition come each day anywhere from ten to forty letters submitted by the secretaries owing to doubt as to the reply to be made. To a few of these the President dictates replies which he signs personally, but the majority are turned back to the secretaries with merely an indication of the general tenor of the reply. Six men are usually employed in typewriting the letters dictated by the secretaries. The latter officials still further husband their energies by the utilization of a number of different "forms," so called. As in other lines of business the "form" is so arranged that it will answer any and all inquiries on a certain subject.

All the mail addressed to members of the President's family passes through the hands of the distributing clerk. The letters from relatives and personal friends reach the members of the household unopened, but communications from persons who seek to reach the President through members of his family are taken in charge by the secretaries. During the winter and spring the problem of handling the mail is complicated by the voluminous social correspondence of the White House. Not infrequently two thousand invitations are issued for a single function. All the invitations for residents of Washington are delivered by a mounted messenger. A careful record of the acceptances is kept in order that the number of guests may be determined in advance.

When the Executive is making a tour of the country or enjoying a summer vacation, an assistant secretary remains at the White House to pass upon all the communications and prepare answers to as many as possible. The answers to the others he learns from the President by telephone. Only the most important papers are forwarded to him. Usually such packets are dispatched by registered mail, but occasionally one of the White House messengers makes the trip.

By a recent innovation the "cross index" system is used in filing letters and other communications. Each missive is indexed alphabetically under the name of the writer and also under the subject treated. The recording of commissions and Congressional measures signed by the President is carried on most systematically. The commissions, for instance, are brought to the White House from various Departments by special messengers and signed. Then a memorandum record is made of the name of the man to whom the commission is issued, the position to which he is appointed, the date of his commission and the date of expiration. All these records are covered by a complete index system. It is in the lack of facilities for filing

GEORGE B. CORTELYOU

Secretary to the President

COL. WM. H. CROOKS
The disbursing officer at the White House

letters and documents of all kinds that the present crowded condition of the Executive offices is felt most seriously. A considerable portion of the White House basement is filled with filing cases, but even here the limit has been nearly reached.

Sometimes the workers in the Executive offices suffer extraordinary exactions,—for example, the task of perfecting complete arrangements for such an extended journey by the President as a trans-continental tour. This is usually left entirely in the hands of Mr. George B. Cortelyou, Secretary-to-the-President. As soon as announcement is made there begin to arrive at the White House numbers

THE WHITE HOUSE MOUNTED CARRIER

of requests from cities and individuals who wish to entertain the President or who desire him to make an address or preside on some occasion. All these invitations are carefully tabulated and filed so that later they can be considered, almost at a glance.

Then comes the preparation of an itinerary. First the route to be followed is sketched out on a chart, with the different lines of railroad, the cities to be visited and the interval to be devoted to each. An effort is made so to account for every minute from the departure from Washington until the President returns that only the most unexpected circumstances will compel any digression from the programme. After the itinerary has been arranged provisionally at the White House, it is turned over to the railroad officials for report on its feasibility, particularly as regards the train speed. As an indication of what may be accomplished, Mr. Cortelyou arranged for the late President McKinley a trip schedule embracing fifteen days, covering more than five thousand miles and traversing thirty railroads, with such accuracy that the only revision which the railroad officials found it necessary to make was an increase of twenty minutes in the running time.

Another delicate task which Secretary Cortelyou performs personally is the copying, printing and distributing of the President's messages to Congress. The utmost secrecy, of course, must be preserved. Some former Presidents have penned their Congressional messages, but Mr. Roosevelt uses dictation almost exclusively. After the typewritten transcript has been revised and corrected by the President the message is sent to the Government Printing Office and there, hedged about by innumerable safeguards, the document is put into type and a limited number of copies printed. The printed copies are delivered to Secretary Cortelyou at the White House and by him distributed to the various newspapers throughout the country. Of course, each press association or newspaper entrusted with a copy promises Secretary Cortelyou that none of the contents of the message will be divulged prior to the reading of the message in Congress. As a rule manuscript copies of the message are sent to the United States Senate and House of Representatives respectively, and the writing of these by the expert penman at the Executive offices is a task of herculean pro-

portions. In some instances it has been necsary for clerks to work throughout the night prior to the opening of Congress in order to complete the manuscripts.

Another interesting phase of the business system is in the payment of salaries. The President is the only official of the Government who is paid on a direct individual warrant from the Treasury Department. All other officials are paid by disbursing officers. Each month the Chief Magistrate receives by mail or special messenger a warrant for one-twelfth his annual salary. The President's check is made out about the 25th of the month and delivered to him three or four days later. Often the warrant endorsed "Theodore Roosevelt, President of the United States" is deposited in a Washington bank before the first day of the ensuing month. In the apportionment of the salaries of all other Government employees the year is divided into four quarters and each quarter subdivided according to the number of days in each month, but the President receives practically the same amount every month in the year. Thus if a President should die at the end of February, after receiving his salary for that month, his successor would in reality receive less than the full amount due him in March, because his predecessor had in effect been overpaid the prior month. Inasmuch as the President's salary may not be divided into exactly equal parts, it is necessary to pay the Chief Magistrate $4,166.66 on some months and $4,166.67 on others. On one occasion during the Cleveland administration a mistake was made, and there were sent to the Chief Executive three successive warrants for $4,166.66. When the error was discovered, the Treasury Department hastened to dispatch to the White House a warrant on the United States Government for one cent made out in Mr. Cleveland's favor, though the President never cashed this check.

COL. B. F. MONTGOMERY
Chief of the Telegraph and Cipher Bureau

Col. William H. Crook, the disbursing officer of the White House,—an attache who has seen more than a third of a century of service in the Executive offices,—pays the salaries of thirty assistants of the President either by warrant or currency. He also pays the bills for all supplies furnished to the Executive offices. Some of these bills are paid at the end of each month while others are paid quarterly. A rather interesting system of bookkeeping, designed to verify some of the heaviest bills presented to the Executive office, is conducted by Col. Benjamin F. Montgomery who is in charge of the Telegraph and Cipher Bureau of the White House.

Colonel Montgomery keeps a detailed record of the length and character of every message dispatched from the White House and at the close of each month apportions the expense among the various branches of the Government, incidentally charging the President and the members of his family with the cost of their personal messages. That this apportionment is rather more intricate than might be imagined is due to the fact that great numbers of telegrams and cablegrams from all branches of the Government, and particularly from the State, War and Navy Departments, are sent to the Executive offices to receive the President's approval or signature and are then dispatched over the White House wires. In the accounting these messages are of course charged to the respective departments. Perhaps one-sixth are of a personal character.

All matters pertaining to the repair and renovation of the White House, the refurnishing of the private apartments, the care of the grounds and the maintenance of the conservatories are under the direction of Col. Theodore A. Bingham, an official of the War Department who is in charge of the public buildings and grounds in the District of Columbia. With none of these matters are the regular staff of the Executive office called upon to concern themselves beyond conveying the President's recommendations. The amount of money which is expended in the care of the White House has shown a tremendous fluctuation in different years, but of late has seldom fallen below $30,000 a year for the care of the White House and $13,000 a year for lighting the mansion and grounds.

SOME LIVING AMERICAN HISTORIANS

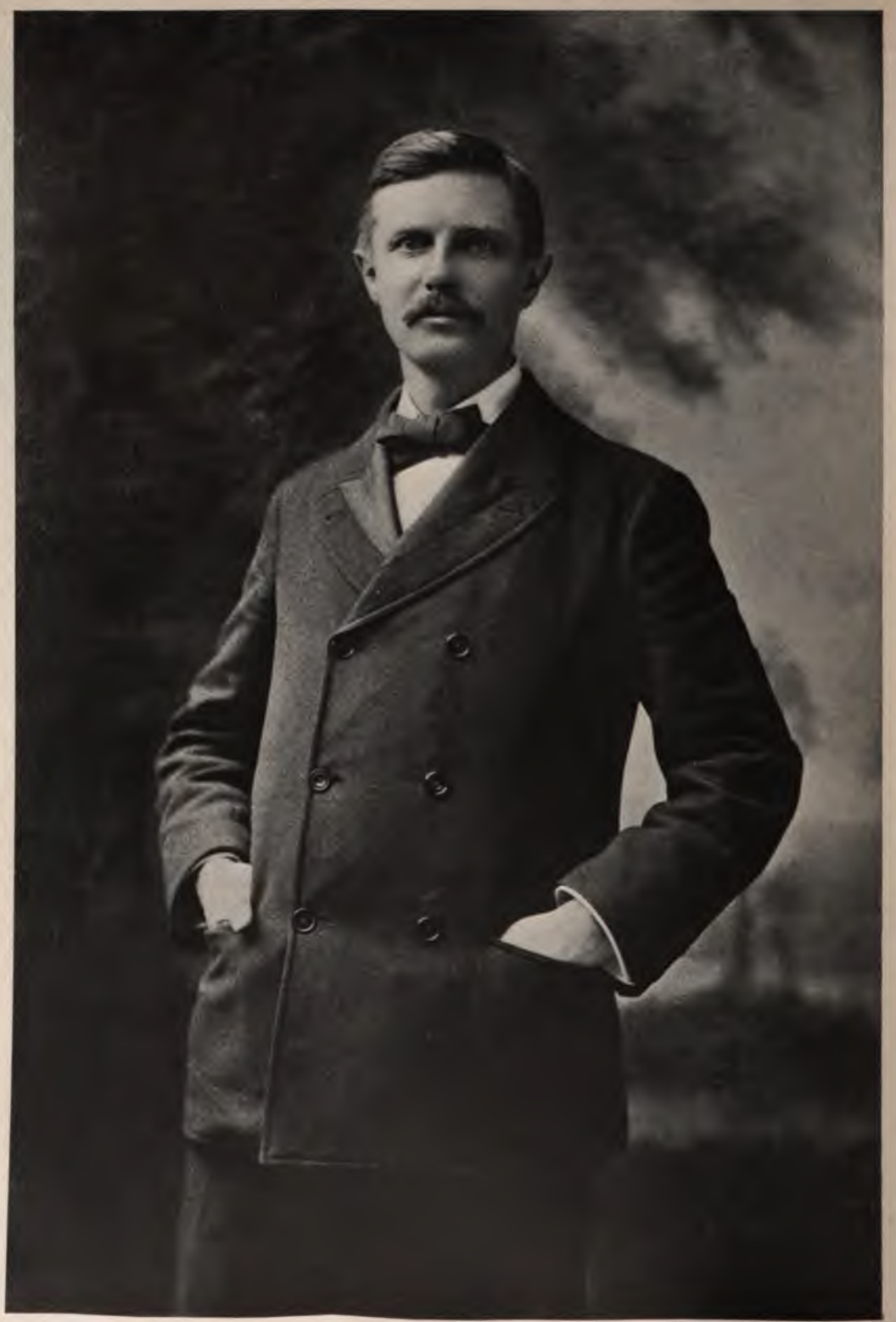
A NEW STANDARD FOR WRITERS OF HISTORY—THE THOROUGH RESEARCH AND CLEAR STYLE OF HENRY CHARLES LEA, CAPTAIN MAHAN, JAMES FORD RHODES, HENRY ADAMS AND OTHERS—WHAT THE POPULARITY OF HISTORICAL FICTION INDICATES

BY

H. MORSE STEPHENS

PROFESSOR OF HISTORY AT CORNELL UNIVERSITY, RECENTLY ELECTED TO THE FACULTY OF THE UNIVERSITY OF CALIFORNIA

THE nineteenth century witnessed a remarkable development of new views in the classification of writers of history, and the beginning of the twentieth century has set a different standard for the work of historians from that previously established. It is now recognized that the aim of the scientific and conscientious historian should be to discover and to state simply and truly what has happened in the past. In his researches he must be indefatigable; in his judgments he must be guided by the laws of evidence; he is expected to examine and to distinguish between the different sorts of material open to him; he is pledged to keep in subordination his personal, political and patriotic prejudices, and to give to the world the truth as he finds it; it is his duty to be objective rather than subjective; and he forswears the temptation of winning a reputation as a brilliant writer in order to have the credit of impressing the actual sequence and meaning of events upon the minds of his readers. This new conception of the historian's aims and work has entirely changed the attitude of the writer



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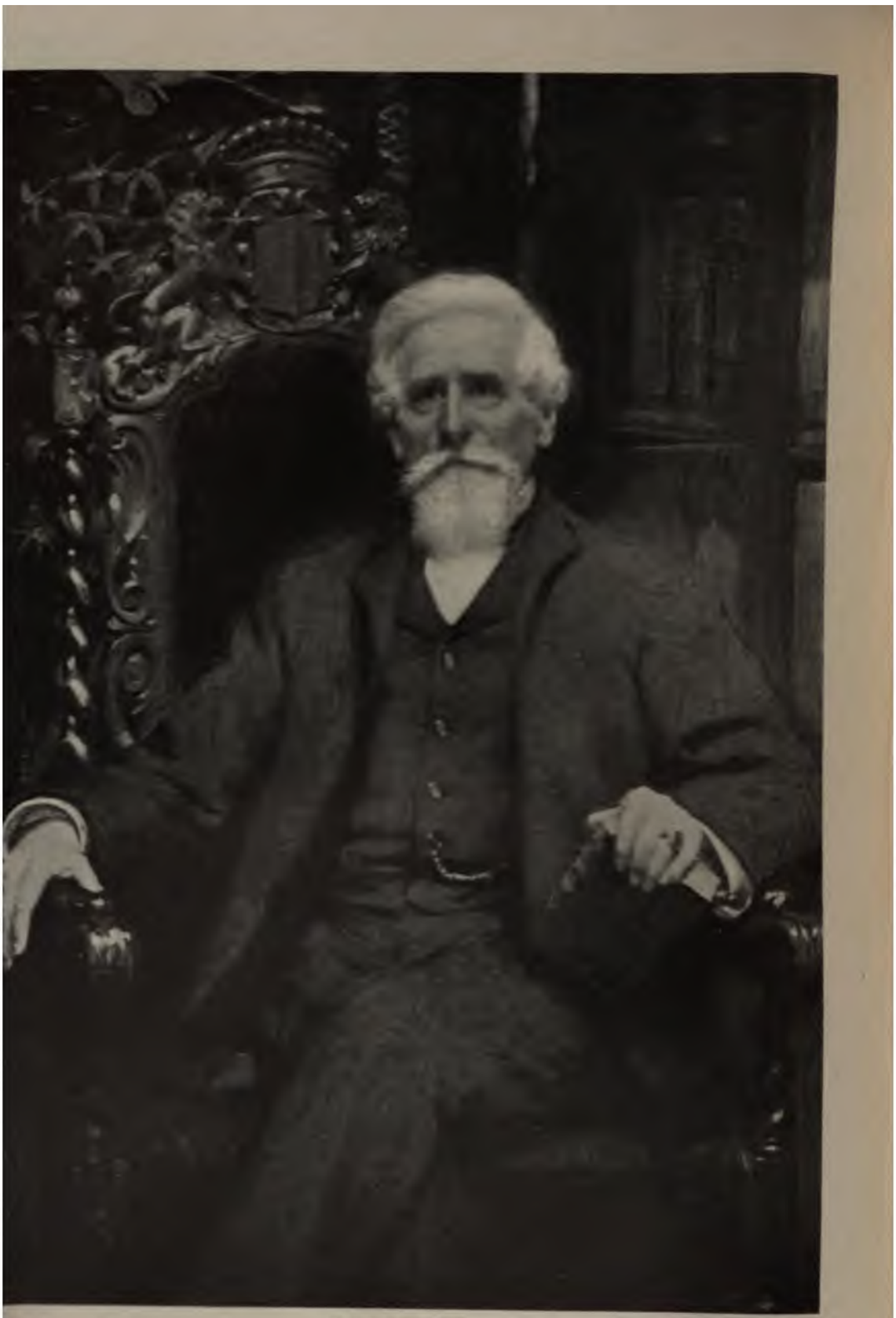
and the teacher and the student of history, but it has hardly yet penetrated into the consciousness of the intelligent majority of the reading public. Brilliant but inaccurate narratives are still too often considered good histories, and that their books should be interesting—trustworthy, if possible, but, before all things else, interesting—is the chief demand made by these readers upon historical writers. It may be that a fear that the more sober style of history that modern experts praise implies an absence of the romantic and picturesque, is in part responsible for the widespread success of the inaccurate historical fiction, which has lately come from the great publishing houses in seemingly never-ending streams. When Macaulay wrote that "history begins in novel and ends in essay" and that "history is a compound of poetry and philosophy" he explained the reason for the extraordinary vogue that his school of historical writers possessed during the greater part of the nineteenth century. That vogue still exists among a large proportion of readers of books whose palates have thus been spoiled for simpler fare, and the maxims upon which modern writers of history have been trained are not yet appreciated by the general public. One of the purposes of this article is to bring out the fact that there are historians of the scientific school in America, whose works are quite as interesting as those of the brilliant men of letters who conceived history after the old fashion, although a greater sobriety of style and a marked absence of the tricks of the novelist distinguishes their writings from those of their predecessors.

The new or scientific conception of history* demands that narratives of what has happened in the past should be based upon the careful examination and appreciation of documents. It is no longer permitted to historians, who respect themselves and their work, to compile their histories from personal memoirs, contemporary chronicles, inaccurate diaries, collections of letters or biased newspapers. Such sources of information may be fitly and skilfully used to supplement or illustrate the main narrative of facts, but that main narrative must be based upon documents of acknowledged validity, such as legislative enactments, executive decrees and authentic despatches. It is not until such primary material is made available that a clear and accurate statement of events can be made. To use a trite instance, all the older histories of the French Revolution have been shown to be picturesquely inaccurate, because they were necessarily written from inaccurate though picturesque material. Now, however, that the French Government and other organizations have authorized the publication by M. Aulard, M. Charavay and other trained editors of actual records of the proceedings of such bodies as the Committee of Public Safety and the Jacobin Club, it is possible to do what M. Aulard has done, and to rewrite the history of the French Revolution from authentic materials.

This sort of work is being done in very country, since the scientific conception of history took root, and in the United States an immense amount of primary material of the first importance has been made accessible of late years to the historical student. In this work the American Historical Association has been a leader, and the National Government in aiding the Association has taken up to a certain degree the work of foreign governments in this direction. State historical societies, the patriotic societies, printing clubs, and private individuals have vied with each other in doing the work which is so indispensable for the historians of the new school, and the departments of history in the great universities have carefully trained both men and women to discover and edit documents, and to place the results of their researches in such a form that the historians can use them with ease and confidence. It would be invidious to single out from the numerous trained American scholars, who have done editorial work in publishing documents, many particular names, but there can be no wrong in mentioning in this connection the splendid services of the late Mr. Justin Winsor of Harvard, whose loss has been so deeply felt wherever historians congregate and wherever historical studies are pursued, or those of Mr. R. G. Thwaites, who

* The writer may perhaps be permitted to refer for a fuller account of the scientific conception of history to his lecture on "History" in a volume published under the title of "Counsel upon the Reading of Books"; Houghton, Mifflin & Co., 1900.



HENRY C. LEA

Author of the "History of the Inquisition in the Middle Ages," etc.

has just completed his monumental edition of the "Jesuit Relations." But these two famous librarians and scholars would be the first to admit that their labors were but subsidiary to the work of the historian, and the numerous editors of documents, who have followed and are following in their steps, know well that their chief duty is to supply grist to the historian's mill. An editor of documents is not always capable of becoming an historian himself. Other qualities than patience, accuracy and erudition are demanded for the historian's work. Impartiality, power to weigh evidence, comprehensive grasp which can distinguish between the essential and the non-essential in details, and a clear and luminous style for the expression of the truths arrived at are needed by the historical writer who would take rank as an historian.

These great demands have been met by comparatively few American writers of history in the present day, and the reading public has not yet assigned to these writers the place of preëminence that expert critics are ready to assign to them. It is fortunately possible to pick out, without fear of contradiction as to their supremacy, at least five contemporary American writers of history, who meet all the canons of the severest expert criticism, and who have at the same time written histories which are eminently readable and mark solid advances in the world's knowledge of its past. The names of these writers are not in every case so well known as they should be, and it is a purpose of this article to point out as standing in the forefront of historical writing at the present time the greatness of the work achieved by Mr. Henry Charles Lea of Philadelphia, Captain A. T. Mahan, the late Mr. Francis Parkman, Mr. James Ford Rhodes and Mr. Henry Adams. Of this group of recognized American historians of the modern school, four are yet with us and three are still engaged in productive work.

The character of the subjects upon which Mr. Lea has written has prevented his name from being as well known in America as it should be. Upon the continent of Europe no American historian is more highly esteemed by scholars than Mr. Lea. In many a European library has the present writer seen in places of honor, giving evidence of constant use, copies of Mr. Lea's celebrated books. He is the only American historian who, by special leave of the University of Oxford granted in full Convocation, has been permitted to borrow manuscripts from the Bodleian Library. This privilege has been granted only to Mommsen and one or two other European writers of history and the fact that it was extended to Mr. Lea is a proof of the importance attached by scholars to his historical work. It has been said that the nature of his studies has kept his reputation in America from equaling his reputation in Europe. The American general reader can hardly be expected to display wild enthusiasm for his "History of the Inquisition in the Middle Ages," his "History of Auricular Confession and Indulgences in the Latin Church," or for his "Historical Sketch of Sacerdotal Celibacy in the Christian Church." These works are, however, recognized as of permanent value and by their masterly grasp of material, by their impartial treatment of difficult and controversial topics, and by their clearness and vigor of style have won for Mr. Lea a place of honor beside the most distinguished historians of the new school who have written in any language.

It so happens that this venerable writer has just published a small volume upon a subject of more general interest, and if any one should think the words of praise just used are in any degree excessive their aptness can be tested by reading Mr. Lea's latest book, "The Moriscos of Spain: their Conversion and Expulsion." In this little volume Mr. Lea deals with a topic in the history of the treatment of the infidel by the Spanish Government, which illustrates the abiding interest felt by American students in the history of Spain. Just as Washington Irving, an excellent representative of the earlier accepted style in the writing of history, was drawn to write "The Chronicle of the Conquest of Granada," so Mr. Lea has been led to write the end of the story of the religious intolerance which drove from Southern Spain the flower of its population. It would be interesting to speculate on the nature of the charm that Spanish history has exercised over American writers from Irving and Ticknor to Lowell and Lea, but that lies aside from the purpose of this paragraph, which is rather to point out the merits of Mr. Lea

as a historian than to speculate about the reasons for his selection of the line of his studies. Enough has been said to emphasize the labors of the modest writer, who is a glory to American historical scholarship, and whose place is assured among the great writers of the scientific school, although, as has been pointed out, the subjects of the greater part of his books are likely to preclude their being widely known or widely read in the United States.

The next American writer of assured position among the historians of the world is Captain Alfred T. Mahan. He, like Mr. Lea, is perhaps better known as a historian in Europe than in America. This can hardly be attributed to the nature of his studies, for the importance of sea power has too recently been made evident to all American citizens not to have attracted more general attention than could be expected for the books of Mr. Lea. However, before the Spanish-American War Captain Mahan's earliest and most famous work was undoubtedly better known to Europe and even to Asiatic experts than to his own people. When the Japanese founded the navy which gave them their triumph over the Chinese Empire, their government was largely inspired thereto by the considerations which Captain Mahan had pointed out in his epoch-making book "The Influence of Sea Power upon History," and to every captain of a Japanese ship of war was served out a copy of Mahan's book as part of his equipment. Equally evident has been the effect of Mahan's historical work upon the founders of the new German Navy, and it is pretty safe to state that his books are as well known to German naval officials as to Japanese captains. But after all it has been in England that the greatest effect of all has been produced. It may be surely asserted that the strongest arguments that have led to the great increase in the money spent in England upon the navy, which has risen from £13,000,000 in 1888 to £32,000,000 in 1902, and in the number of the sailors employed, from 50,000 to 85,000, during the same period of fifteen years, have been drawn from the unanswerable logic of Captain Mahan's books on naval history. It is very seldom, indeed it is perhaps unique, in the history of the world, that historical writings have done so much to influence the policy of nations as have the writings of Captain Mahan. It may be that the Japanese, German and English navies would have undergone their great development from reasons of national policy apart from any proofs of the importance of sea power in the past, but the convincing arguments for such development were mainly derived from the lucid setting forth of the importance of navies in the past by the great American historian. Allied to his influence upon politics has been his influence upon the study of naval history. The revived interest in that study, and the rewriting of the history of the English Navy from authentic material, dates from the publication of Captain Mahan's "Influence of Sea Power upon History." The formation of "The Navy Records Society" has brought to light in its publications many documents that have changed the old received accounts of such past events in England's naval history as the defeat of the Spanish Armada and the naval campaigns of the Commonwealth. Men like Professor J. K. Laughton, Mr. Oppenheim and Mr. Julian Corbett have pursued their useful historical investigations and been enabled to make them public largely through the stimulus afforded by Mahan's writings.

The present writer happened to be a member of the general committee which organized a dinner to Rear-Admiral Erben and the officers of the U. S. S. *Chicago* at St. James's Hall in London at the time of the visit of the *Chicago* in 1894, and he can bear evidence to the fact that the chief desire of the academic portion of the diners was to see and hear the great American writer on naval affairs, who had so profoundly affected the study of English history in a neglected field and who was so profoundly affecting English public policy. In that same summer Captain Mahan was honored with the degrees of LL.D. from the University of Cambridge and of D.C.L. from the University of Oxford, and I can aver from personal observation that the enthusiasm of all present from the undergraduates to the Vice-Chancellors was reserved for Captain Mahan, who was received with respectful curiosity by the older persons upon the floor and with the tumultuous singing of "Yankee Doodle" from the undergraduates in the galleries. The part that Captain Mahan took as a member of the Board of Naval Strategy

during the Spanish-American War is not as well known as it should be, but this article deals with him as an historian, and not as a naval strategist. He is still engaged in productive work, and his "Influence of Sea Power upon the French Revolution and Empire," his "Life of Nelson" and his "Types of Naval Officers" have shown the same masterly grasp of material and the same power of subordinating detail to the bringing out of broad general considerations that distinguished his first book. Captain Mahan at present fills the office of President of the American Historical Association, and since he has now left the navy he will be regarded in the future chiefly as one of America's leading historians.

Turning from historians like Mr. Lea, whose works appeal mainly to European students of ecclesiastical history and religious toleration, and like Captain Mahan, whose special fame is in the creation of a new line of historical work, which has as yet affected foreign more than National history, it is now time to point out the leadership in scientific history of certain writers, who have devoted themselves to the study of American history. The first of these is undoubtedly Francis Parkman. His works mark the transition period from a highly embellished style of historical writing to the steady pursuit of historical accuracy. This is not the place to deal with the life of Parkman, but it would be impossible to show the transition from George Bancroft to James Ford Rhodes, which corresponds to the transition in England from Macaulay and Froude to Stubbs and Gardiner, without marking the place that Parkman holds. In his first book the influence of contemporary writers, who were primarily politicians and men of letters rather than historians, is clearly to be seen. In the first edition of "The Conspiracy of Pontiac," published in 1851, is to be observed the sort of fine writing, which might be expected from the author of that fascinating book of travels "The Oregon Trail," and that it was followed up by the writing of a novel shows that Parkman had not yet struck his proper gait as a scientific historian. It is exceedingly interesting to trace through the series of volumes on "France and England in North America," which were published between 1865 and 1892, the gradual evolution of the historian. The earlier volumes are full of the purple patches of fine writing which used to be expected from historical writers, and an attempt is made towards elaboration of style instead of the simple statement of facts. But as Parkman developed, the spirit of the age affected him. The later volumes "Montcalm and Wolfe" and "A Half-Century of Conflict" are by modern standards far superior to "The Pioneers of France in the New World" and "The Jesuits in North America." It was not only that as he progressed Parkman showed a better sense of the comparative value of his materials and a greater desire to present both sides of all questions in which contradictory evidence was used, but it was rather in the more objective tone of his narrative and in the greater simplicity of his treatment and the slighter intrusion of mere descriptive passages, that he became a model for succeeding writers. Many destructive criticisms have been leveled at his earlier writings, but the later volumes have rightly taken a front place in the estimation of fair-minded historical students of the interesting period, which he investigated and described.

Parkman is certainly much better known to the general public than Mr. Lea and perhaps than Captain Mahan, but yet even in the places that his writings have made known to all readers of modern history his name is either forgotten or has never been learned. It happened that the present writer was led during his first year of residence in America to pay a visit to Mackinaw Island, largely for the purpose of seeing with his own eyes a place of which he had read in Parkman's history long years before on the other side of the Atlantic Ocean. Full of the memories of the massacre at Fort Michilimackinac and of the story of the fur-trader, Henry, he resolved to spend some days in those historic scenes. Not having his copy of Parkman with him he went forth among the news stands and the drug stores, and found that no one of whom he inquired had ever heard the name of Parkman, though they were eager to vend a pamphlet by a local druggist and a story by Mrs. Catherwood, entitled "The White Slave." A better proof could hardly be afforded of the neglect, the undeserved neglect, into which Parkman's fame had fallen, even in the part of the country that should remember him the longest.

Among living and working writers of American history the palm undoubtedly belongs to Mr. James Ford Rhodes. The fact that last year he was admitted to an honorary degree by both Harvard and Yale, and that he was selected for special honor at Berlin, may be taken as signs of recent recognition of his ability and success. Four volumes have up to this time appeared of his "History of the United States from the Compromise of 1850," bringing the narrative down to 1864. The task of writing contemporary, or nearly contemporary, history is easily recognized as presenting especial difficulties, both on account of the nature of the material and of the difficulty of framing a clear perspective. This is particularly the case when the years dealt with cover so hotly debated a period as that of the Civil War. Although the issues of the Civil War are now no longer alive and were indeed settled by the result of that momentous struggle, yet many of its events are still in the domain of controversy and are the subject of much conflicting evidence. It is true that the monumental publication of war records by the United States Government has provided a mass of primary material which supersedes, except for the elucidation of contemporary opinion, the narratives of contemporary newspapers and of personal recollections, but the very mass of this material makes the appreciation of it a task of unusual difficulty. Further, the passions of the time have not so died down as to make absolute impartiality possible, except to a trained and wary intellect. But the more difficult the task, the greater the glory of having surmounted it. Mr. Rhodes has shown that the history of a comparatively recent epoch, instinct with political and personal controversies, can be handled with the same impartial spirit that underlies the work of modern historians of the scientific school in dealing with more remote periods, upon which the material has been already carefully sifted. In the work of Mr. Rhodes, as in the work of Mr. Parkman, a steady development of control of material can be perceived. The touch is more sure, the diminution of the amount of unnecessary detail is more marked, and the reliance upon the untrustworthy contemporary journalism is less shown, in the later than in the earlier volumes. The style is more simple, the generalizations are fewer and the arrangement is more effective, as each succeeding volume follows its predecessor. The applause of the learned and academic worlds has been fully and freely given to Mr. Rhodes, but it is time that the great public of general readers, who wish to know the story of the Civil War elsewhere than in historical fiction, should realize that there is in course of publication a great and modern and impartial history, in which they can find the story of the greatest struggle ever fought out on this continent of America told clearly and interestingly by a master writer, who can see both sides of a question and can thread his way with certainty and impartiality through the mazes of conflicting and controversial evidence.

Last of the five great American historians of the present day should be mentioned Mr. Henry Adams. His great work "The History of the United States during the Administrations of Jefferson and Madison," was published before the final volumes of Parkman and before either Captain Mahan or Mr. Rhodes had begun to build their reputations, but, to the regret of all students of American history, the nine volumes of completed work have had no successors. Whatever may be the reason, possibly from the amount of space devoted to a comparatively brief period of the National history, or the manner of publication, or sheer dislike for advertising, the most masterly work yet written on the formative period of the history of the American people has never received its rightful place among the masterpieces of historical literature. On more than one occasion it has fallen to the writer of this article to deal in a public lecture with the achievements of American historians, and never has he failed to perceive with pained surprise the look of blank amazement which follows words of fitting praise for Mr. Henry Adams as a historian. On one occasion, after such an experience in addressing the audience at a summer school, several intelligent and well educated teachers assured the lecturer that they had never had their attention drawn in any lecture, book or magazine to the existence of Mr. Adams's volumes. This is certainly not the fault of the Professors of American History at the universities, for all experts know well the value of Mr. Adams's history. In their excellent "Guide to the

Study of American History" Professors Channing and Hart speak of it "as a model of clear, enlightened, and fearless historical composition." But despite such praise as this, the book seems never to have got into popular vogue and its author has never received his meed of popular recognition. This is the more surprising, since Mr. Henry Adams adds to exceptional scientific skill in the handling of his material a most interesting and effective style. He has not only worked over all the printed material published upon his period at the time of the publication of his book, but shows on nearly every page a knowledge of the manuscript material, especially that preserved in the French archives. In addition to the use of all possible material Mr. Adams has shown himself a master of the foreign policy of a most difficult period of American statesmanship. The sureness of touch which he exhibits, when dealing with the internal politics of France and England during the time of Napoleon, is remarkable and indeed unique among American historians. His book is not simply a contribution to American history; it is an indispensable aid to the understanding of European history, when, as at this time, American politics were so much involved in European history. But beyond all this, Mr. Henry Adams has supplied in the first six chapters of his first volume the key which opens that enigma to all European peoples, the character of the American nation When the present writer is asked, as he constantly is by English friends, to recommend some book that may explain to them the American people and their marvelous history of expansion across the North American continent, he always refers his questioners to the opening chapters of Mr. Adams's history, and more particularly to Chapter VI on "American Ideals." Unfortunately Mr. Adams's book is as little known, except among a few experts, on the other side of the Atlantic Ocean as upon this, and yet it is only necessary to draw attention to the book to hear the most enthusiastic praises of its merits.

It might have been thought that so patriotic a people as the citizens of the United States, feeling as they do the sense of historic continuity in their great achievements, would have enthusiastically enshrined among their favorite histories the work which points out with most eloquence and most accuracy those aspirations and ideals which have made the United States a nation.

It is worthy of remark that all the five writers whose works have been mentioned as conforming with the strictest rules of modern historical writing and equaling in thoroughness, grasp and style the best works of the age in Europe, are men who do not now belong to academic circles, and that four of them took to the writing of history while engaged in very different pursuits. Mr. Henry Adams, it is true, was from 1870 to 1877 a Professor of History at Harvard, but Mr. Parkman was a man of independent means, Captain Mahan has passed a busy life as a naval officer, and both Mr. Lea and Mr. Rhodes have been engaged in business. The position of professor does not seem at present in the United States to be so conducive as it is in Europe to the writing of histories of the very first rank. The absorption of the work of teaching, the absence of leisure, and the lack of advantages for traveling to study material and of means to provide for paying for copies of material preserved in distant archives combine to prevent the undertaking of large tasks. But in the production of monographs, in the selection and editing of documents, and in the training of men to do the necessary pioneer work among historical materials the professors in American universities have taken their part in clearing the way for more accurate knowledge. Certain books like "Civilization During the Middle Ages," by Professor G. B. Adams of Yale University show a thorough acquaintance with the best that is being done in historical research in Europe; such volumes as "Essays in Historical Criticism," by Professor E. G. Bourne, also of Yale University, show the newer historical criticism in its fullest development; the elaborate "Sources and Literature of English History" by Professor Charles Gross of Harvard, exhibits exhaustive, critical and patient reading; and many another professor could be cited, who has managed, in spite of the engrossing labors of teaching, to make solid contributions to history. But there is one professor in particular, whose handling of material shows a deeper historical insight than any of the rest, and to whom the hopes of students of American

history are turned with the highest of hopes and expectations.

It has been said that Mr. Henry Adams in the opening of his great history gives the keynote for the understanding of the character of the American people at the opening of their expansion as a nation across the American continent. The one man who has taken up the task of explanation where Mr. Adams stopped is Professor F. J. Turner of the University of Wisconsin. In a paper entitled "The Significance of the Frontier in American History," which was published in the "Annual Report of the American Historical Association for 1893," but which is unfortunately inaccessible elsewhere, Professor Turner has dwelt on the features of American expansion with a lucidity, and with an admirable knowledge based upon a wealth of research, of which the detail is never obtruded, that makes his short paper as remarkable in its way as the chapter of Mr. Henry Adams. This is not the place to dwell upon the great services which Professor Turner is rendering to the cause of sound historical education in his place at the University of Wisconsin, where in the sumptuous building for the study of history, which the State of Wisconsin has furnished to its State Historical Society, and amidst the wealth of primary material garnered by the care of such great collectors as Dr. Draper and Mr. Thwaites, he is enabled to teach the story of the West to the best advantage. But it is well here to point out that a true scholar and teacher, even in the midst of his professorial duties, can sometimes find time, as Professor Turner has done in the article referred to, and in similar studies, to show that the most thorough research is not incompatible with the writing of history that is interesting in the highest and truest sense. Both the foreigner who wishes to understand American history and the American people, and the American citizen, who cares for high and patriotic revelation of the secret of his success, should turn for insight as well as for information to such writings as those of Mr. Henry Adams and Professor F. J. Turner.

In such a review of contemporary historical work in America it may perhaps not be amiss to allude to the fruitful labors of two writers of eminence who have recently passed away. Mr. John Fiske was perhaps the most popular historical writer of the last few years. His volumes have been read by thousands, where the writings of the historians whose work has been referred to, have been read by tens. His reputation was larger with the general public than that of any of the masters, who have been acknowledged as such by historical experts. Mr. Fiske distinctly wrote for the general public and he pleased them well. Like Mr. J. R. Green in England he possessed the power of fascinating his readers. It was not his appointed task to delve into mines of unexamined material or to set forth for the first time after a close appreciation of all possible sources of information a new and faithful account of some misunderstood topic or some misconceived period. He can never hold place by the great masters who have revealed new views or have solved old difficulties, but he made known to thousands of readers in an acceptable fashion the results of the researches of many experts. He might have been, as he shows in many passages in his historical works and especially in his "Critical Period of American History," a scientific historian of critical power, but he preferred the no less useful, if less glorious, occupation of setting forth to the general public a readable and, compared with Mr. Henry Adams, a succinct series of narratives and descriptions of American history and of the American people in the different stages of their first development.

Of the writings of the late Professor Moses Coit Tyler a colleague of his can hardly be expected to speak with absolute impartiality. The sunny, tolerant temperament, which made him the beloved friend of all who were brought into close contact with him, shines through his historical writings and in his "Literary History of the American Revolution" the greatest historical merit is the kindly treatment that he gives to the opponents of the American Revolution, those Tories who have been so long and so patriotically maligned. With the recent deaths of these two writers should be mourned the loss of Mr. J. C. Ropes, whose two opening volumes of the "Story of the Civil War" gave promise of an absolutely fair and scientific treatment of the military details of the great struggle, which he had studied with thorough and perfect devotion during his whole lifetime.

Something should be said too of the historical work of two men who hold high places in the nation. Amidst the rush of the active and strenuous life, which he has lived and loved, President Roosevelt has found time to do some historical work, which shows a capacity that might have made him a historian, if he had not preferred to be many other things. Mr. Henry Cabot Lodge has given many proofs of the attractions that historical work has for him, from his essay on Anglo-Saxon land-law, published with an essay from Mr. Henry Adams among others in a volume of "Essays in Anglo-Saxon Law" in 1876, to his essay on Richard III. of England, his "Short History of the English Colonies in America" and his "Story of the Revolution."

The enormous popularity of historical fiction in these latter days shows that American readers are not averse to echoes from by-gone years, if only they be interesting. It may be true that the historical novelists of today have not the knowledge of past events or the insight into history, which enabled the two great masters of historical fiction, Sir Walter Scott and Alexandre Dumas, to give so true an atmosphere of the epochs in which they laid the scenes of their novels. But at any rate there seems to be something of a revival of interest in the historical past, which induces some writers to find it profitable to place very modern romance of a very modern type into the more picturesque surroundings of antiquated costumes and antiquated language. It may be that the interest in the past aroused by historical fiction might be turned in the direction of encouraging the reading of real history, and if such should be the case it is to be hoped that readers may have their attention drawn to the histories which are being and have recently been written, rather than to the imitations of Macaulay and of Bancroft that still find their way to an unsuspecting public.

This article has been devoted to pointing out the merits of some of the most illustrious American writers of the new school; and its close may well be a fervent hope that the interest aroused by the novels of Mr. Churchill and Miss Johnston may be directed towards the reading of sound history and the recognition by the great body of the reading public of contemporary American historians and their works.

A GIANT KANSAS FARM

THE MAMMOTH SHERMAN FARM IN KANSAS WHICH HAS A FENCE LINE MORE THAN ONE HUNDRED MILES LONG—SIXTY-TWO SQUARE MILES OF WHEAT, CORN AND PASTURAGE — PLOWING ON A LARGE SCALE

BY

C. H. MATSON

THE agriculturist who carefully cultivates forty or sixty or eighty acres and calls it a farm, is likely to look upon a "quarter section"—the regulation homestead of one hundred and sixty acres—as a large estate; an entire section (a mile square) he would doubtless regard as a tremendous area, and a half-dozen sections would seem like a whole province. What would such a man think of a farm on which from one hundred to one hundred and fifty men are employed; a farm whose furthest corner is seventeen miles from the farm house; a farm that requires three bookkeepers and stenographers to make a record of its activity?

That is the scale on which Mr. M. M. Sherman conducts his farm in Central Kansas. He has more than 40,000 acres. Every year he sells more than 2,500 fat beeves. If a man were to start to ride around his farm on horseback, following the fence line and riding

fifty miles a day, he could not make its circuit in two days.

There are, in some of the sparsely settled regions of the West, and in Mexico, far larger ranches than this farm, but they are vast open tracts over which great herds of cattle graze at will, becoming half wild in a few months. Sherman Ranch is not of that kind. It is really a farm. There are no great unbroken areas of prairie. It is cut up into fields and comparatively small pastures, and there are generally from six to eight thousand head of cattle kept on it.

The most remarkable thing about Sherman Ranch is its management. It has been supposed that farm work is difficult of organization. This is not true on Sherman Ranch. No factory was ever operated in a more systematic manner than is this farm. At any time Mr. Sherman can tell just how much feed certain cattle in a specified pasture consumed, who fed it to them, what field it came from and how far it was hauled. Every night he knows exactly what each employee has accomplished that day. The farm's manager knows, at seven o'clock each evening, by telephone, just what was done that day, even on the furthermost field, seventeen miles away. There are sixty-two square miles in this farm, equivalent to 248 farms of the usual size, 160 acres; but it does not lie in a compact body, and this accounts for the great length of its boundary line. The extreme limits of the farm extend seventeen miles east and west, and eleven miles north and south.

Passengers on the Missouri Pacific Railroad from Kansas City to Denver see this farm first at the little station of Langley. That is twelve miles from the ranch headquarters. A few miles further southwest comes another view of Sherman ranch. Again the train speeds onward and six miles further west it comes to Geneseo, the nearest point to the ranch headquarters. The farm extends within a half-mile of Geneseo, but the "farmhouse" is still four miles away. Along the north side of this great farm runs the main Denver line of the Union Pacific Railroad, while through it extends a branch line.

The farm, like "all Gaul" of Cæsar's time, is divided into three parts, and over each there is a foreman. A boarding-house is located in each division, and in these live most of the unmarried employees. Scattered over the farm are numerous tenant houses, occupied by the families of employees who are married. A telephone system connects all parts of the farm with the headquarters.

The work in general is planned by the farm superintendent and by him telephoned to the foremen. The cattle are fed at stated intervals and they are given a certain amount —no more, no less. Each man has his particular work to perform.

During the summer months five thousand acres are planted to corn and forage crops. Two thousand acres of corn are planted on the low lands, while on the upland is planted the forage, one thousand acres of sorghum and two thousand acres of Kaffir corn. In the fall about fifteen hundred acres of wheat are sown for pasturage during the winter months. The rest of the ranch is largely taken up with pasture land. The largest area of land in a single pasture is seven hundred acres, and most of the pastures contain much less than this. There are cattle of all ages and sizes from young calves up to "feeders" and fat beeves. More than two thousand calves are born on this farm every year. Those that are good for beef cattle are fed with that in view and they are augmented by others shipped in from Mexico, so that the total number fattened for market each year is upwards of three thousand, or more than one hundred and fifty car loads.

Cattle which are fattened for the market are fed not only corn and rough feed, but meal of different kinds, and bran and cottonseed meal. A great deal of the corn is ground, cobs and all, before it is fed to the cattle, and all the fodder is shredded. A force of twelve men and a sixteen horse-power gasoline engine are kept busy running the machinery which shreds the fodder. Mr. Sherman believes that the process adds fifty per cent. to the value of rough feed.

In the summer time the men work from seven o'clock in the morning till seven in the evening, with two hours off at midday. During the winter the hours are shorter. Every evening the foremen telephone to headquarters the details of the work accomplis during the day. By an ingenious system blank reports which Mr. Sherman has c vised a bookkeeper can make a record o

PLANTING TWO THOUSAND ACRES OF CORN

work done as fast as reports come over the telephone.

The employees are paid $20 a month and board. Those who are at work on October 1st of each year are paid a bonus of $5.00 a month for all the time they have been continuously employed. This is to prevent an exodus from the ranch into the wheat fields during the harvesting and threshing seasons, when wages rise for a short time. The farm hand who works on Sherman Ranch the year around thus receives $25 a month, which is considerably more than is paid the average farm hand. If a man is married he is given a house to live in, rent free, and is allowed $10 a month extra for his own board, and if his wife wishes to do so she has a chance to board some of the single farm hands.

Sherman Ranch, though it is devoted almost exclusively to raising and fattening cattle for the beef market, is almost in the centre of the Kansas wheat belt. Rice County, adjoining it on the south, produced in 1901 nearly four million bushels of wheat. McPherson County, to the east, raised three and a half million bushels. Ellsworth County in which the big farm is located, raised 2,335,000 bushels.

None of the counties produced less than a million bushels of wheat last year, and some went nearly as high as seven millions.

The only threshing machines used in the Kansas wheat belt are the big ones that are operated by steam engines. No horses are necessary for the machine except to haul water and fuel. When the engines are not in use for running threshing machines they are sometimes utilized for plowing, but this is not common, for the ground is so moist that the engine sinks far into the soft dirt.

Mr. Sherman is now trying to devise a method of plowing by power by the use of two engines, one at either end of the field, propelling a cable between them, to which the plows may be attached. He believes this to be the best solution of the plowing-by-power problem, provided a gasoline engine can be made with sufficient weight to propel the plows and still not be too heavy for practical utility. In fact, every experiment which is made in the work of the farm is commensurate with the size of the farm and its crop. But nothing is unwieldy and the entire little State which the Sherman farm makes swings along with better system and with greater profit than commonwealths a century old.

THE HERDS GRAZING ON THE RANGE

A GLACIER ON THE HEIGHTS
In the Cascade Range

ALONG THE NORTHWEST BOUNDARY

A DESCRIPTION OF THE GREAT FORESTS AND MOUNTAINS ON THE FORTY-NINTH PARALLEL — A LITTLE KNOWN REGION OF GREAT SCENIC BEAUTY

BY

BAILEY WILLIS

GEOLOGIST OF THE UNITED STATES GEOLOGICAL SURVEY

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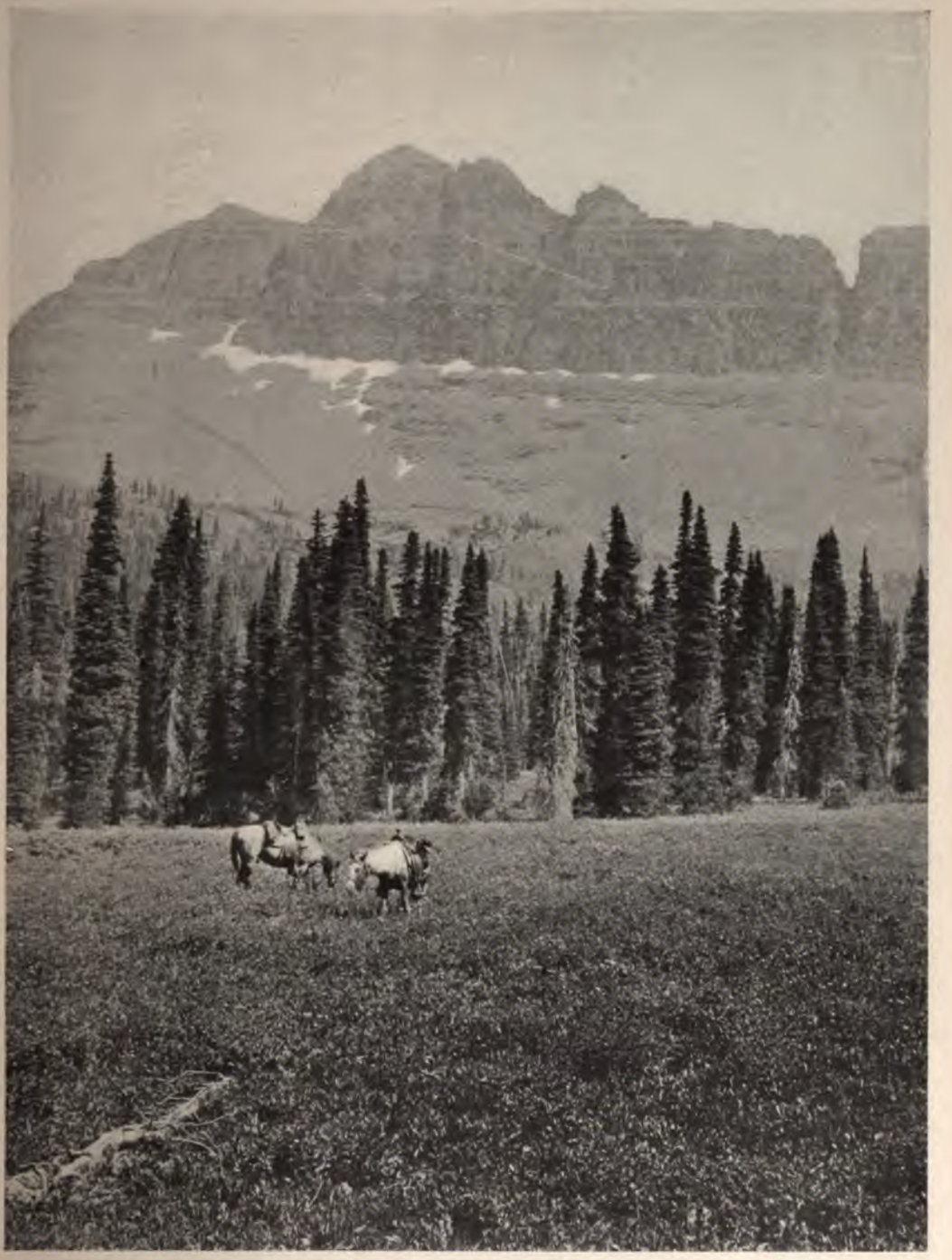
Illustrated from photographs by the Author

THE Northwest Boundary between the United States and Canada, from the summit of the Rocky Mountains to the coast, is defined by the Treaty of 1846, and was partially surveyed by a joint commission of English and American officers, 1857-1861. The discovery of mineral prospects during the year 1897-1900 in the vicinity of the Boundary raised questions as to its exact location. In consequence, parties were sent out at the request of the Secretary of State, and during the summer of 1901 the [illegible] of the Boundary line from the [illegible] Plains to the coast was examined.

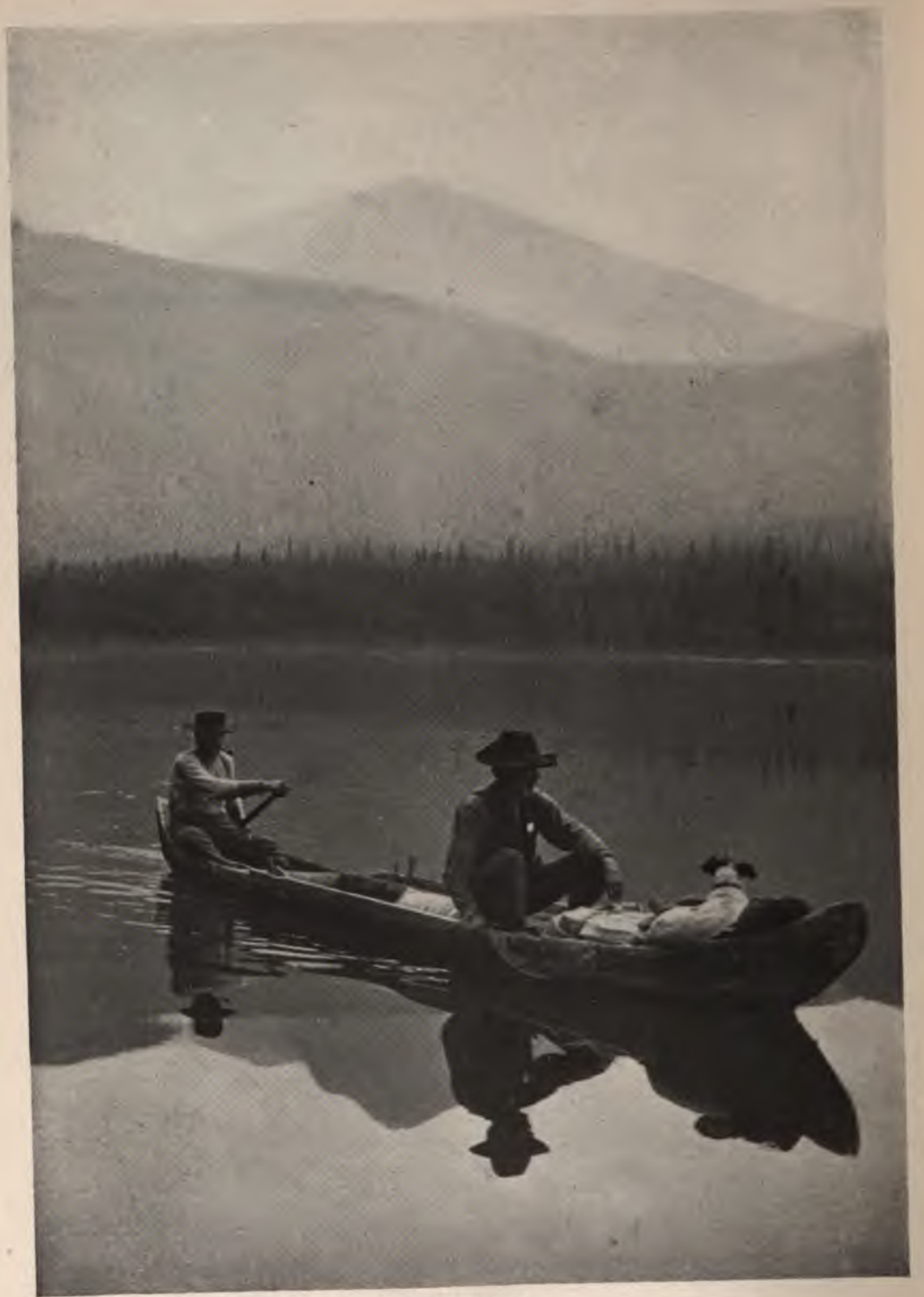
This article is a description of the natural [illegible] along the Boundary line, and is [illegible] upon the writer's personal observations [illegible] exploring trips.

The boundary traverses at least two important mining districts, that known as the Republic in Northeastern Washington, and the Mt. Baker district in the northwestern part of the same State. Between them lies the Cascade Range, which is known to contain metalliferous deposits, but is as yet scarcely prospected, on account of the inaccessible nature of its canyons and forests. Further east, in Idaho and Montana, prospectors have penetrated the remote recesses of the Rockies, and although no considerable ore bodies have been discovered, many claims are located. In the easternmost range, which boldly faces the Plains, petroleum occurs as a film on several springs. Among a people who persevere to the death in search of the transient treasures of the underworld, these known and possible mineral riches are sufficient to occasion recourse even to vio-



A PARK AMONG THE BATTLEMENTS

In the Lewis Range, Montana



EXPLORERS

In the Lewis Range, Montana

lence over an uncertain boundary. To determine the line agreed upon between them more than half a century ago and to mark it beyond question, Great Britain and the United States are preparing for a second survey commission. During the summer of 1901 parties of Canadian and American surveyors reëxamined the district along the line and made observations to test the work of the former commission, to ascertain the nature of the difficulties to be overcome in the proposed operations, and to investigate the physical character, the geologic structure, and the resources of the region.

From the Western coast Eastward the Boundary extends through the great forests of the Puget Sound region, passing north of Nooksak Valley and Mt. Baker, across Skagit River and up onto the Cascade Range. The forest is not a familiar type. Lovers of our Eastern green woods who step from the sunny pastures to the shade beneath low branching maples, oaks, and chestnuts know the charm of the half light and the exquisite modulations of tint and form where the sunbeams slip from leaf to leaf down verdant stairways to the ground.. In the great Puget forest here and there, where a venerable tree has fallen from the ranks, you may see the sunlight slipping from branch to branch of the broad-leafed vine maple, to be caught upon a luxuriant growth of ferns, but these are occasional high lights only in days passed as in a cathedral. Hour after hour the wanderer may cast his eye upward along the giant tree trunks, taller than village spires, and everywhere the fretted roof of evergreen shuts in the aisles, shuts out the sky. Then silent night follows upon silent day, darkness falls and walls your camp fire round about with ebony, against which the trees are splendid columns and the firelit sprays of saplings, shrubbery, and vines are delicate tracery of surpassing grace. Rolled in your blanket on your bed of ferns and moss, look far up to where the hemlock boughs gently wave assurance, and a benediction. Though you are deep in the wilderness, where there is no path nor any guide, though you are alone far from men, these gently waving boughs soothe you with their rhythmic motion and give you peace. Outside, beyond the many-spired roof, clouds are sweeping on the Western wind up the mountain sides; at times the storm rides the tree tops, but the embers of your fire are not fanned. The great firs sway, but the tiny flower is not stirred. They bend, they recover, the surface of the forest tosses like the sea; but, like the deeps of the sea, its depths are calm. When there comes booming through the aisles the crash of a great tree that has borne its evergreen crown a half a thousand years, then you may tremble or, if you can, forget yourself in the majesty of the trees battling with the gale.

In its primeval state the forest was not of uniform growth. Differences of exposure, of soil, of moisture, or of age occasioned various aspects, but whether its shafts in their first century rose tall and slender or, having passed their many hundredth spring, stood in hoary age, there was always among them the tangle of trees, shrubs, vines, ferns, and moss, which made progress difficult for men, impossible for horses. The time of the forest's prime was more than fifty years ago. With the establishment of the first sawmills on Puget Sound began the cutting, burning, and destroying which have at last aroused thoughtful men to the necessity of combining intelligent methods of forest culture with forest use. The first surveyors of the Boundary found the growth an almost insuperable obstacle, and to cut trails and to reëstablish the line from the sea to the Cascade Mountains is still a long and difficult task, even for men who swing the double-bitted axe and can work cheerfully in the deep shade.

Exploring once with two companions, a sober Tyrolese and a buoyant Irishman, I passed two weeks threading the mazes of the green world, without sight of the clouds that hid the sun. Lost at length among strange mountains, with the last bite in our packs, we stopped beside a noisy brook as evening came. Hans sank down upon a log and, burying his head in his hands, gave up. Pat, still bearing his pack, danced in front of despairing Hans, and to cheer him, exclaimed: "Arrah! Ye'll niver see your mither agin, lad. No, ye niver will!"

Among the heights of the Cascade Range Hans, however, would have been at home. The scenic type which characterizes Switzerland, the Caucasus, and the Selkirks, is impressed upon the Cascades. Amphitheatre, precipice, and needle peak are its elements. It is world-wide as are frost and ice, and is

sculptured on Andean heights near the equator as on Alaskan Alps. Snow-draped pinnacles against the sky, ice masses clinging on steeps and broken into a chaos of flashing pyramids on cliffs, threadlike waterfalls swaying before dark precipices and vanishing in rainbows to unite among flowers,—these are the details beyond which lies a splendid panorama of peaks, of foothills, and far away lowlands. Emerging from the great forest, those who may survey the Boundary across the Cascades will camp by exquisite lakelets where heather, lupine, painted brush, and golden mimulus vie with each other in brilliant hues and the Selkirk lily thrusts its green spathe through the vanishing snow. They will need to climb the walls of amphitheatres, to scale narrow *arrettes*, to descend into deep canyons, and to trace the parallel where they cannot tread.

The Cascade Range divides adjacent regions as unlike as Alaska and California. On its western slope a northern flora mingles with a temperate one, but on its eastern foothills hardy southern plants thrive and the pines are those of the Sierra Nevada. The distinction is not between northern and southern however, so much as it is between humid and arid. The rains of Western Washington, if gathered for a year and held as a lake over the surface on which they fall, would drown all who could not climb or swim; those of the Eastern part of the State would not reach knee deep. On the Western seaboard are those of Southern England; on the Eastern plateaus the wheat growers know the winter cold of Norway and the summer heat of Morocco. Their fields absorb the melting snow and yield it again to the luxuriant growth of grain, which from sprout time to harvest receives no rain. The Boundary crosses this semi-arid region in a hilly district traversed by the Columbia River and its tributaries. It artificially divides both of the great north-south valleys of the Okanogan and Columbia Rivers and is itself crossed and recrossed by smaller streams. The hills are covered with bunch grass and Western yellow pines, whose smooth, straight trunks and symmetrical growth give them a well-bred look. Standing usually far apart, they have an air of individual distinction, quite superior to the vagabond spruces which mingle with low shrubbery along the streams.

Some years ago, when this region was still the Colville Indian Reservation, each ridge was marked by a well-beaten path, which you might know for a deer trail, not only by the tracks, but also because it was not worn for a little way on either side of an obstruction. A bounding deer leaves no track for a space. But when the country was thrown open to white men it was quickly explored, and promising deposits of silver and gold being found, it was over-run, opened up, and settled. The prophecy of one of the Indian chiefs has been realized. One evening in 1883 he had smoked in dignified silence by my camp fire while several younger Indians told us about the difficulties of a proposed trip down the canyon of the Columbia. For their own purposes they greatly exaggerated the obstacles. Unwilling to believe and unable to contradict what they said, lest they should dishearten some of my little party, I turned the talk to the then mooted question of ceding part of the reserve. The older man listened till, kindled by the discussion, he rose and advanced into the full light of the fire. With measured accent yielding to emphasis that became impassioned, he made his protest in the deep guttural language of his people. We scarcely felt our ignorance of the words. A sweep of his out-stretched arm described the lands over which his forefathers had roamed; a pinch of earth between his thumb and finger what was left to him and his. A few kernels rattled in a pod typified the Indians remaining; a cloud of white winged seeds shaken upon the evening breeze symbolized the coming race. His closing words stated his determination to die by the great river that flowed through the hunting grounds of his fathers.

As I watched his dark countenance, a ruddy bas-relief against the black night, he wrapped his blanket about him and strode away. But fate has been kind to him. In 1900 he was living still by Lake Chelan, and his white neighbors testified that old Wapato was respected among them as a man whose word was his bond.

The heat that rises in summer from the bare plateaus of Central Washington is intense. It converts moisture-bearing winds from over the Cascades into rainless currents which carry their moisture till they are chilled by the mountains of Idaho. There the rains

mantle the slopes with forest and the luxuriance of growth approaches that of Puget Sound.

The Boundary we are following eastward, after crossing the Columbia, rises upon the southern extension of the Selkirk range, the westernmost height of the Rocky Mountain system, which in Canada was the greatest obstacle encountered by the engineers who located the Canadian Pacific Railroad. Its scenic grandeur attracts many travelers to the northern route, but in the altitude of the Boundary it is a forest-covered mass, probably nowhere over 8,000 feet in altitude, and though its dark summits are beautiful in distant sweep of profile and cloud-wreathed slope, it is not characterized by great cliffs or towering peaks.

The mountains of Northern Idaho also are of massive forms, a type familiar to many Americans in the Highlands of the Hudson, where Crow Nest and Storm King in gray and waving green shoulder up above West Point. But the resemblance is in form only. Of far greater magnitude, these Idaho mountains are mantled in sombre evergreen. The gay tints of spring and the gorgeous hues of autumn being foreign to their nature, they formerly knew only the dark garb of summer and the white robe of winter; but now there is too often the red scar of fire on the bared mountain's breast. In different districts of Idaho and Western Montana, through prospectors, lumbermen, and railroads, ten to ninety per cent. of the forest has been destroyed by fire. One area of about 1,500 square miles remains almost untouched in a primeval state. Enclosed by the Kootenai River and the international Boundary it has hitherto escaped, but the lumberman's advance guard reached it last summer, and unless it be protected as a forest reserve, the columns of smoke by day and of fire by night will soon herald its destruction.

With a glance at brown plateaus and green mountains, we have crossed Washington and Idaho, and are as far east in Montana as the North Fork of Flathead River, which rises in British Columbia and flows southward. Its course, a long loop through Flathead Lake, westward along Clark's Fork, through Lake Pend' Oreille, and northward again to the Columbia, might have been that of the international Boundary had British proposals prevailed; for it is the most northeastern branch of the Columbia River system in latitude forty-nine. But the compromise line along that parallel crosses its narrow valley at 3,500 feet above the sea, west of the great Front Range of the Rockies, whose peaks rise to 10,000 feet. Eastward from this last zone of mountains extend the Great Plains, and on the divide from which waters flow to the Pacific, the Arctic, and the Gulf of Mexico stands the stone pile which marks the eastern end of the northwestern Boundary and the western end of the northern Boundary. It is also the corner-stone of Alberta and British Columbia.

The Front Range is peculiarly precipitous. Among systems with which it may be contrasted are the broad-based mountains of Colorado, the narrow desert ranges of Utah, whose slopes are scored by hundreds of ravines, or the single-crested Sierra Nevada. On each of these the great sculptor, the sun, who with his tools, the elements, shapes the landscape forms, has with light touch engraved to the music of brooks or cut boldly to the tumult of a torrent. His broader chisel, the glacier, which in darkness and in silence digs deeply into mountain masses, has also left its marks, but chiefly on the heights alone. In the Yosemite region, the Cascade Range, the Selkirks, and the Front Range, on the other hand, glaciers have sunk their icy fingers deeply into the mountains' heart. Rarely are the forms carved by river and rivulet brought into such striking contrast with those sculptured by ice as in the mountains of Northwestern Montana which the valley of the North Fork divides. Westward from it among the massive heights the valleys lie open to the sun, which early slants down the slopes and lingers on them till the shadows are long. The streams skip from pool to pool and loiter where trout lie in amber-tinted reaches.

Eastward from the North Fork profound canyons lead into the Front Range and others equally deep lead out to the Great Plains. Its summit is double, parted by a high valley from which deeply sunken glacial channels lead northward through Waterton Lakes and southwestward through McDonald Lake. Precipices Yosemite can scarcely rival close the heads of these canyons and tower above lakelets lying where only the sunlight of

summer noon may reach the snows that chill them. Back to back, each curving about its amphitheatre, the great cliffs rise, and so closely that the ridge between is but a wall in thickness as it is in steepness. Its crest is pinnacled, its face is relieved by bands and bars of snow. It is a splendid buttress of some peak on which are the summer pastures of the Rocky Mountain goat and the rarer Bighorn sheep.

Theirs is but a brief season of warmth and plenty, from mid-June to mid-September. Then among the goats the nannies are followed by their kids and a square-shouldered bearded billy watches the flock. Stalking a band of them last summer on one of the easily accessible summits, I came down to them from above, from the direction toward which they seemed to keep the least watch. At a hundred and fifty yards the cover ceased, and camera in hand I rose to my feet, but the goats, unfamiliar with the awful Kodak, did not run away. While I stood still, snapping at them, the old billy goat laid down on a commanding point and resting his head in front of his knees, which were doubled under him, fixed his eyes on me. A kid trotted up to him, nosed him, and looking at me, plainly asked: "Hadn't we better skip?" But the old billy was in no mood for questions, and tucking a horn under the little chap, sent him sprawling among the flowers; and not until a comrade joined me did he think the situation dangerous. He then led off across the adjacent cliffs by a path none but a goat might follow. In this district caution has not yet overcome their curiosity, and it is not difficult to approach within rifle range. A little wholesome exercise, an hour with the glorious scenery, a shot, and on the narrow ledge along which he comes in fancied security you see the shaggy patriarch stagger. Far below is the alpine meadow where the kids are playing. He gathers the muscles that never yet failed, however desperate the leap, and leaps for safety, misses, and whirls down, mercifully far down. Go, bring the pack-mule, and load him with the trophies of the chase.

Toward the northeast the Front Range faces like a fortress of the gods with curtains, salients, and prominent outposts. Its walls rise abruptly. At sunset from the Plains each sharp-cut peak lifts its craggy summit "a looming bastion fringed with fire" against the evening sky. Close to the forty-ninth parallel stands a lonely sentinel, as bold in his isolation as any mountain of the range. Within a hundred miles north and east all who ride the featureless prairies greet him as their landmark. The Indians call him "Chief." He who in the days of the early explorers called him "The King" better expressed the majestic individuality of the peak, as we see it from afar. Draw near and clamber over the ruins that encompass its base, huge blocks fallen in chaotic heaps. Look up the riven cliffs, tread the crest in which chasms yawn, and as the blast sweeps fiercely by, scan the scars with which the elements have marked "The King" in the battle of untold ages. It is a conflict which no mountain survives.

Facing the rising sun, this sentinel of the Rockies for two centuries past has fronted one of the greatest migrations of humanity from which a new race is developing. Dividing in the ports of Europe into two streams, the one to occupy the British Dominions, the other to homestead the lands of the Republic, —Russians, Italians, French, Germans, and English sink into the environment of the free continent and are all transformed into Americans of one variety north of the line, of another south of it. Their national distinctions disappear in a generation; the racial differences between Slav, Latin, and Teuton are less rapidly but not less surely modified in the evolution of the American. In its westward drift the foreign element is assimilated and distributes itself according to preference among the valleys, forests, plains, and mountains of Canada and the United States. The true American of the West is all things that a man must be to dominate his environment and make it serve his ends. Alike north and south of the Boundary he treads eagerly the trail to power and wealth, and though he fail, his failure blazes the way for another's success. The canoe has given place to the steamer, bales of peltries are replaced by sacks of wheat, pack trains yield to railroad trains, and commerce extends her highways where so recently all was wilderness. What sovereigns of England and France divided, kings of railroad systems are uniting, and the old Boundary, which was established as a "dividend line" between warring nations, has become a tollgate at which we pay our nickel for the privilege of going to market.

THE ART OF PRAISING LIVING MEN

BY

GEORGE PERRY MORRIS

THE appraisal of living men of distinction, made by university presidents when honorary degrees are conferred on them, is a delicate and difficult task, if degree-giving is kept from mere perfunctory laudation.

The greatest expert in making such judgments and the best master of this epigrammatic style is President Eliot, of Harvard. President Tucker, of Dartmouth College, does it exceedingly well. President Hadley of Yale and President-emeritus Gilman of Johns Hopkins have had recent occasions to show their skill. Admirable they all are; and it may be interesting at this time of year to recall some of the more noteworthy appraisals that have been made of distinguished men. This list does not include any degrees given since the Johns Hopkins quarter-centennial in February.

MELVILLE W. FULLER, CHIEF JUSTICE OF UNITED STATES SUPREME COURT

"Who adds to inheritance and succession, learning, insight, character—watchful guardian of the Constitution; firm arbiter of justice."—*President Tucker.*

"In recognition of that highest of all praises, which is contained in the simple sentence that you are worthy of the position you occupy."—*President Hadley.*

JOHN HAY, SECRETARY OF STATE

"Pilot of the ship of State through uncharted seas."—*President Tucker.*

"Whose great achievements in letters have been thrown into the shade by yet greater achievements in statesmanship; a trusted leader of the American people."—*President Hadley.*

THE LATE WILLIAM T. SAMPSON, REAR-ADMIRAL OF THE UNITED STATES NAVY

"An officer fore-sighted, fore-armed, ready at every point, the American expert in high command."—*President Eliot.*

"Chosen representative of the American navy, in which the American people has put its trust, and under whose leadership that trust has been worthily fulfilled."—*President Hadley.*

ARTHUR T. HADLEY, PRESIDENT OF YALE

"Teacher and scholar, president-elect of Yale University, heir of her strong traditions, prophet of her upward career."—*President Eliot.*

"A writer and thinker of acknowledged authority on the principles of finance and administration, the honorable successor of Timothy Dwight."—*President Gilman.*

F. L. PATTON, PRESIDENT OF PRINCETON

"Eminent as preacher, more eminent as theologian, and most eminent as educational leader."—*President Hadley.*

"Revered as a preacher of righteousness, admired as an Abelard in dialectics, beloved as an inspiring teacher of theology and philosophy."—*President Gilman.*

HENRY SMITH PRITCHETT, PRESIDENT OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

"Called from serving the nation in one capacity in order to serve it yet more profoundly in another."—*President Hadley.*

"Astronomer and geodesist, who has been the distinguished head of the Coast Survey and is now the head of a vigorous foundation in Boston, the Massachusetts Institute of Technology."—*President Gilman.*

WOODROW WILSON, OF PRINCETON UNIVERSITY

"On you who, like Blackstone, have made the studies of the jurist the pleasure of the gentleman, and have clothed political investigations in the form of true literature, we confer, etc."—*President Hadley.*

"Writer and speaker of grace and force, whose vision is so broad that it includes both North and South, a master of principles which underlie a free government."—*President Gilman.*

T. B. ALDRICH, POET

"Man of letters, essayist, story-teller and poet; at home in wide fields of the imagination."—*President Eliot.*

"Alike for what you have yourself expressed and what you have evoked in others."—*President Hadley.*

BOOKER T. WASHINGTON, PRINCIPAL OF TUSKEGEE INSTITUTE

"Teacher; wise helper of his race; good servant of God and country."—*President Eliot.*

"Leader of a race out of childhood into manhood."—*President Tucker.*

PRESIDENT CHARLES WILLIAM ELIOT, OF HARVARD

"President of Harvard University, oldest and most comprehensive of American institutions—the chief, whose wisdom, vigor and devotion to education have brought him honors which we gladly acknowledge, which we cannot augment."—*President Gilman.*

THOMAS NELSON PAGE, NOVELIST

"By whose magic power bitter memories of civil war are transmuted to harbingers of eternal peace."—*President Hadley.*

GEORGE FRISBIE HOAR, UNITED STATES SENATOR FROM MASSACHUSETTS

"Fit successor of Webster, master of speech, advocate of freedom, a patriot who widens the bounds of party to satisfy the demands of liberty and justice."—*President Tucker.*

ALEXANDER GRAHAM BELL, INVENTOR OF THE BELL TELEPHONE

"Inventor, worker of everyday miracles who taught the deaf to see speech, and enabled the listening ear to hear human voice a thousand miles."—*President Eliot.*

SAMUEL W. M'CALL, MEMBER OF CONGRESS FROM MASSACHUSETTS

"Student of men and of events, who reads the issues of the times, not in the glare of the hour, but in the light of history, steadfast in conviction, strong in utterance, in action above expediency."—*President Tucker.*

GENERAL LEONARD WOOD, LATE GOVERNOR OF CUBA

"Harvard Doctor of Medicine, army surgeon, single-minded soldier, life-saver, restorer of a province."—*President Eliot.*

JAMES C. CARTER, LAWYER, OF NEW YORK

"Whom we may without derogation to the many able advocates present, truthfully style at once the Nestor and the Chesterfield of the legal profession in America."—*President Hadley.*

EDWARD EVERETT HALE

"Venerated and beloved, comforter and quickener of men, devoted to the social well-being, whose citizenship is acknowledged alike in the republic of letters, of the State, and of religion."—*President Tucker.*

JULES CAMBON, AMBASSADOR TO THE UNITED STATES FROM FRANCE

"Ambassador of France, in whom we salute a great nation, once New England's foe, then the thirteen colonies' ally, now comrade in the incessant struggle to achieve the diffused intelligence and character whereupon rest republican institutions."—*President Eliot.*

JAMES BRYCE, M. P., AUTHOR OF "THE AMERICAN COMMONWEALTH"

"Interpreter of the American people and of the American people to the world."—*President Tucker.*

HORACE HOWARD FURNESS, EDITOR OF SHAKESPEARE

"In recognition of those elucidations of Shakespeare wherein you have compassed the impossible task of gilding refined gold."—*President Hadley.*

THE LATE SIR JULIAN PAUNCEFOTE, BRITISH AMBASSADOR TO THE UNITED STATES

"English ambassador, welcome representative of the country from which America has derived its best stock, its most serviceable habits of thought, and its ideals of public liberty and public justice."—*President Eliot.*

THE EARL OF ABERDEEN, LATE GOVERNOR-GENERAL OF CANADA

"Representing here today England's greatest achievement, except English liberty, a beneficent colonial policy."—*President Eliot.*

AUGUSTUS ST. GAUDENS, SCULPTOR

"A sculptor whose art follows but ennobles nature, confers fame and lasting remembrance, and does not count the mortal years it takes to mould memorial forms."—*President Eliot.*

THE REVIVAL OF SKILLED HAND-WORK

WOOD-CARVING, WORK IN LEATHER AND IN METAL AS A LIVELIHOOD AND AS AN ART—THE RISE OF MODERN INDIVIDUAL INDUSTRIES — THEIR RAPID GROWTH — THE MAN WHO IS HIS OWN BOSS — PERSONAL TRADE-MARKS IN THE ARTS

BY

CHARLES BARNARD

IN New England a good workman is described as a "Master-hand at his trade." Within the past few years a new and superior workman has appeared who is his own designer, skilled worker and dealer—in brief, his own employer. There are women also who are designers and workers and are their own saleswomen.

The upper West-side apartment district of New York may not appear to be the best place to find the shop of a Master-hand. A few steps from prosaic Columbus Avenue, on One hundred and Fourth Street, lead to a small brick dwelling. There is a high stoop and a large basement window and a few stone steps lead down to a lofty basement room having a fine north light. Here at a table sits a young woman clad in a long check apron and busy with skilful fingers upon a mass of New Jersey clay. Slowly, inch by inch, the mass grows up into the form of a beautiful vase. She has the usual sculptor's tools, nothing more—not even a potter's wheel. She has had a sculptor's training, is an art student and practical designer and potter. About the room on shelves are black terra-cotta vases of every form and size from little flower bowls up to great garden vases. All are of her own design and workmanship. Everything is her own handiwork except the firing, the smaller vases being fired at a Harlem pottery, and the larger vases fired at Perth Amboy. Every vase is for sale and many more have been sold and distributed. At intervals cards are sent out for a studio reception sale and the little room is crowded for hours and empty when the last guest carries off the last vase. The young woman's mother assists in the little shop and this makes the whole plant, a basement room, two Master-hands and some Jersey clay.

East Twenty-Third Street is never lovely and it comes with a sort of pleasant surprise to take an elevator to the top floor and escape from the dreary street into the silence and reposeful peace of a charming little studio-home. A young woman welcomes, in soft Southern speech, to her home and her workshop. She begs to be excused from mere social forms. She can talk and work, and sits before a great wooden chest and takes up her wood-carving tools, and while she talks the beautiful foliage seems to grow under her skilful fingers. With enthusiasm she discourses upon the wood and the design of the chest. The design is her own and the only thing she did not do was the actual putting together of the chest. Why should she waste her valuable time on work any carpenter can do? All else, design, carving, fire etching, coloring, ornaments, handles, hinges and locks are her own work except the heavy forging of the handles and clasps. She is the Master-hand of the whole job and when finished it will be a beautiful chest, fit for the outfit of a bride. In the next room another girl is at work upon another beautiful chest. On the walls are mats and other useful things in leather, colored, tooled and fire-etched. The place is a shop and it is also salesroom and the home of the Master-hands.

Not far away, on East Twentieth Street, is another still larger shop. Here two women, Master-hands in copper, design and make copper vessels and utensils for parlor and kitchen. Strong, well made and beautiful, the things give a new dignity to the art of the coppersmith. On the walls are fine fabrics stenciled in colors in novel and attractive designs. On the tables are mats and useful things for the desk in tooled and colored leather.

[illegible] Master-hands do everything from the de- [illegible] the finished products [illegible] are combined work- [illegible]

[illegible] first-class apartment house [illegible] not the place [illegible] first-rate [illegible] tools. She [illegible] view of the [illegible] own designs [illegible] invented in her [illegible] pride of her [illegible] Master-hand.

[illegible] Master-hands [illegible] might merely [illegible] danger of [illegible] were no other [illegible] they would [illegible] special mention. [illegible] because they are types [illegible] over the country [illegible] each of [illegible] a new phase [illegible] Master-hands [illegible] twelve of our [illegible] design, make and [illegible] and brass, [illegible] pottery, fine [illegible] jewelry, [illegible] other enameled [illegible] terra-cotta [illegible] Some of [illegible] and others [illegible] windows.

[illegible] how many [illegible] in their own [illegible] the whole [illegible] authorities place [illegible] the mak- [illegible] but as new [illegible] particularly in [illegible] at least one [illegible] a liv- [illegible] those who [illegible] work there [illegible] other skilled [illegible] to these [illegible]

[illegible] hands are [illegible] not take [illegible] that the [illegible] business. [illegible] and

sale of the products of these new shops. There is one store of this kind in Boston and a most attractive store has been recently opened in New York for the sale of the beautiful products of these new shops. The Master-hands very quickly discovered that the studio is not the best place in which to sell the goods and sent their goods to the stores, greatly to their advantage, though all continue to exhibit and take orders in their little shops.

It is not easy to say how this new and promising business sprang into such sudden success. That it is successful is beyond question and, best of all, the demand for the goods thus made rapidly increases from month to month. In a certain way the business is the natural outcome of the work of the Exchange for Women's Work. There are now eighty of these exchanges for the sale of work done by women. These exchanges began as places where embroidery, lace, cake bread, pickles, and other home-made things could be offered for sale. They give employment to many hundreds of women and distribute hundreds of thousands of dollars among the home workers every year, the New York Exchange distributing in 1900 $55,000

A portion of these workers have become Master-hands, but the majority of the Master-hands sell their work through the dozen or more Arts and Crafts Societies, now established throughout the country. A few of the Master-hands sell only at their own shops and advertise their goods through the press. In one or two instances a number of workers have united and do their work in one shop and have one salesman for all their products. In several instances the shops are a part of larger plants making other things, a furniture shop and forge being attached to a printing and bookbinding concern.

In every instance the Master-hand, whether man or woman, is his or her own designer and makes the finished product wholly or in large part with hand tools only. All are highly trained designers and artisans and all must have more or less art education. The whole business is based upon hand work and it must be skilful, honest and inspired with real love of the work. There can be no eight-hours-a-day business, for the worker, fired with a real love of the work, is greedy of every minute of daylight. He has no time for the folly of the saloon. He never watches the clock or slows

up just before whistle time. There is no whistle on the new shop, no shop rules, no foreman, no time-keeper. The workman is boss and the boss is the worker. There are no wages, but profits. There is no employer, liable to fail or to die and throw the worker upon the streets; for the worker deals, either directly or through a store or society, with the public and the public is the universal paymaster and can never die or fail.

The buying public has evidently discovered the Master-hand. The useful, the practical and the cheap must be the products of the mill and factory. Machine-made things we must have and always will have, and it is fortunate indeed that machinery can and does supply many human wants at such low cost. With it all there remains a survival of the old mediæval love of the honest, hand-made thing. We like to have and use the real hand-made, the thing that is wrought by skilled hands, inspired by a love of work and touched with the tool marks of the Master-hand. It is this love of the hand-made that has developed and sustained the new shops. The buyer will pay well for the unique thing, the one thing bearing the Master's sign manual stamped upon the thing itself. The public patronizes the Arts and Crafts Societies, because it believes that the things upon their shelves are the real things. It learns the value of personal trade-marks and it buys by the trade-mark rather than by the advice of the shopkeeper to whom the "just as good" is the only trick of his trade he knows. For the superior workman tired of the shop and factory, for the man who wants to work for the love of good work, the Master-hands are an example and an inspiration.

THE REAL ISSUE OF THE COAL STRIKE

BY

M. G. CUNNIFF

WHEN reports of shootings and burnings and assaults began to arrive from coal strike districts, the public had already wearied greatly of the strike. Such a strike is a heavy public burden, and violence increased the offense. The whole disturbance demonstrated from the first that whoever was responsible for it has helped the agitation for public ownership of the coal supply, and indirectly other forms of socialism, for it is not to be expected that such conflicts can fail to suggest in certain minds even unwisely drastic remedies for the chronic evil of strike after strike. That a milder remedy will serve, the facts appearing up to the time of writing will serve to show.

However befogged the issues of the strike may become as it continues, the fact stares the public in the face that the United Mine Workers, after formulating specific grievances last March, postponed a threatened strike for a month to discuss them with the operators and with members of the Arbitration Department of the Civic Federation, and then offered to leave their demands to arbitration. In a notable and important disagreement, involving a vast industry, a body of organized workmen endeavored to be conservative.

The terms the miners asked were these: a ten-per-cent. increase in their wages; an eight-hour day for their laborers, who by the customary arrangement receive one-third the gross receipts of the miners, who work by contract; an eight-hour day for other men on "company account," such as engineers, pump men and so on; the privilege of having a checker at the weighing of the coal; a new ton of 2,240 pounds instead of 2,700; and recognition of the union. They were willing to accept as a compromise a five-per-cent. increase in wages, says Senator Hanna; and when the operators refused to grant even that, President Mitchell of the Mine Workers still urged the 145,000 miners not to strike, simply because he believed the occasion inopportune. This, too, showed conservatism, not on the part of the miners who struck, but on the part of their leader.

Now, viewing the whole anthracite region, the conditions giving rise to the miners' demands are found to be such as to furnish in different mines arguments both for and against the granting of such demands as were made. In no industry can conditions vary more than in anthracite coal-mining. The pitch of tunnels, the proportion of slate or sulphur in the coal, the honesty of the "checkers" and weighers, the matter of company stores, the efficiency and industriousness of the miners and laborers, the character of foremen, and the number of working days in the year: all these, making the condition of the workingmen harder or easier as the case may be, differ so widely as to furnish circumstantial arguments on both sides of the question. But citing specific instances of unreason on either side in any single case or in any single locality simply confuses the issue: no facts avail to clarify the subject except those that effect the coal region as a whole. One alone stands out with convincing force. Dr. Peter Roberts, author of "The Anthracite Coal Industry," a recent exhaustive treatment of the subject, computing an average of wages paid before the ten-per-cent. increase of 1900, shows that the miners—whatever may be their wages from time to time—have for twenty-five years received an equivalent of $1.50 a day for the three hundred working days of the year. Their wages are higher than this, of course, but as the men work on an average but one hundred and ninety days a year, this $1.50 a day for the three hundred working days normally spent in employment in other industries has represented the miners' living income. Since they won their strike of 1900 it has been $1.65 a day, under an arrangement, however, by which thirty-seven per cent. of the miners, as for a long time past, are met with the company store system. It is true, of course, that many of the men average for the year more than $1.65, just as it is true that many average less; but the $1.65 represents what the miners as a whole receive on an average: the laborers receive smaller wages still. The present strike, accordingly, however the situation may be confused, was primarily for the purpose of raising this standard of living: this supporting a family on an average through the industry of $9.90 a week or less.

The United Mine Workers of America, however, are affiliated with the American Federation of Labor, whose avowed purpose it is to secure the best possible condition of its members by a series of skirmishes aimed to secure one advantage after another. Interested this year to gain one, the Mine Workers will be interested next year to gain another. Having gained one, they would tighten their ranks for another, without a strike if possible,—for that is the policy of the whole Federation of Labor,—but, if necessary, with a strike. Accordingly, taking the natural, and quite logical, point of view of the coal operators,—the officials of the railroads controlling the anthracite coal industry,—the Mine Workers, after securing a ten-per-cent. increase in wages in 1900, demanded before the present strike not only a better standard of living, but a firmer foothold for demanding a better standard still at some time in the future. The whole matter, analysed, became a question of unionism, for it was clear that any concession granted to the miners now would make them stronger to ask greater concessions at a time when it would be more dangerous or even impossible to refuse, say in the Presidential election summer of 1904. It will be remembered that political reasons had a share in settling the strike of 1900 in favor of the miners. In this light, the operators by refusing to yield at all, adopted the soundest possible selfish business policy. A small concession would have strengthened the union for presenting new grievances next year; it was inconceivable that any arbitration board would decide that workmen protesting against a $9.90 a week scale of living, were making exorbitant requests; if the union must be broken, this was the time to break it.

The public, accordingly, is suffering because vast business syndicates, preferring to set themselves the wage scale of employees, have refused to permit an entering wedge of the community-of-interest arrangement that labor unions at their strongest insist on establishing. This arrangement means the settling of all business dealings—for wages and for other conditions of employment—between workmen and employers by collective bargaining: representatives of labor with representatives of employers. How much the public is made to suffer while the contest is waged for the arrangement, or in this case for

the first step toward it, has already come home to consumers.

The anthracite mines produce about five million tons a month, practically all of which goes into household consumption, except in cities like Boston and New York which, to avoid the soot that disfigures Pittsburg and Chicago, forbid the use of soft coal in industries. It has never been profitable to store anthracite: it has been found more economical to produce just enough to supply the probable demand; and the syndicate of railroads controlling the anthracite fields amicably decide just what proportions of the amount needed each shall produce every year. When the strike came, therefore, although the companies are believed to have employed the month of discussion accorded them in piling up an unusual supply, the demand began at once to draw on a fixed quantity, and with the growing scarcity the price to the consumer went up and up—from $5.35 a ton at the beginning of the strike to $7.50 a ton three weeks after. With New York City alone using normally 30,000 tons a day, a positive anthracite famine is not far off, and in any event the public pays a large share of the operators' loss through the strike, dollar after dollar as the shortening supply grows dearer and dearer. Nor do the strikers lose as much as would appear, for after the great bituminous coal strike of 1898 in which the miners were for a long time idle, the yearly average of working days showed no falling off: time lost in the strike was made up by an increase in the working days for the rest of the year. It is the public that pays for a strike like this. Just as deeply interested, then, as the warring sides, the public has become a party to the anthracite strike; it faces a famine in an absolute necessity; and is forced, as the famine approaches, to give aid and comfort to the operators by buying expensive coal. Nor can it be maintained that the operators are obliged to keep the miners poorly paid in order that the public may not have to pay too much for coal; the fallacy of this sort of reasoning was shown in clothing manufacture when the degraded sweat-shop was abolished.

It is a public problem, therefore, just as it was a public problem in 1893 when the clothing makers were striking, to decide not merely whether a certain body of workmen are justified in demanding for their labor an American rather than a European standard of living, but whether the public are willing to suffer in order to crush the power of a labor union. For each side in the coal strike is fighting for a principle. President Baer of the Reading Railroad, one of the leading operators, declared in February that labor unions are a menace to American industry; the Mine Workers, as members of the American Federation of Labor, constructively declare that it is the laborer's province to share equally with the employer in settling the conditions under which industry shall be carried on, and that this sharing is for the best ultimate interests of society.

Now on the part of the public two things have been done to furnish sound evidence on the broad question and to offer machinery —in default of any hampering law of compulsory arbitration—to settle disputes. The Industrial Commission was organized to make the most thorough investigation into the labor question that ever was made, and the Arbitration Department of the Civic Federation was formed to assist adjudication of disagreements.

The Industrial Commission, after taking volumes of testimony, came to the following conclusion:

"By the organization of labor and by no other means is it possible to introduce an element of democracy into the government of industry. By this means only the workers can effectively take part in determining the conditions under which they work. This becomes true in the fullest and best sense only when the employers frankly meet the representatives of the workmen, and deal with them as parties equally interested in the conduct of affairs. . . . In such conferences as those between the United Mine Workers and the coal mine operators (*in the bituminous coal industry*) this real industrial partnership is frankly recognized and made the basis of negotiations.

"The general tenor of the testimony before the Commission seems to be that employers view the organization of labor with increasing tolerance, even where they do not view it with marked favor. The unions seem themselves increasingly to deserve the respect of the employers and of the community. . . . So far as employers take a long look ahead and act in the interest of the ultimate welfare

of society, it is believed that they will encourage rather than repress the growth of democratic government in their industries. . . . If they adopt a repressive policy they may perhaps succeed in it; but as long as the tradition of freedom is strong in the minds of the working people they cannot destroy the aspiration for a measure of self-government in respect to the most important part of life."

Nor is machinery lacking for such settling of working conditions as the Commission suggests. The Arbitration Department of the Civic Federation in no way sets itself up as a tribunal, nor does it even suggest the arbitration of disputes, though it is widely, but wrongly, believed that this is the purpose of the Board. It merely offers an opportunity for labor representatives and employers to throw aside the unreasoning, uncomprehending hatred that has caused most strikes in the past, and to meet to discuss labor difficulties in the judicial fashion in which other business affairs are settled. It hopes for a settlement without recourse to either strikes or arbitration. If no agreement can be reached, it still deprecates costly strikes and presents in its committee of thirty an absolutely unimpeachable roll of men from whom arbitrators can be chosen. The whole *raison d'etre* of the Department is to furnish, with no attempt at arrogance, a means of settling industrial disputes with honor, and with no trenching on the rights of either side.

As for the violence reported from the strike region, it needs no pointing out that in no way can strikers lose public sympathy more quickly than by making attacks on persons or on property. At the same time it may be asked how a class of men, many of them foreigners, who have spent their lives in supporting families on $9.90 a week can learn the necessity of orderliness. Considerate treatment and a better standard of living will teach them that far better than repression ever can.

THE PHILIPPINE PROBLEM

THE POLICY OF OUR GOVERNMENT AS SET FORTH BY PRESIDENT ROOSEVELT IN HIS MEMORIAL-DAY ADDRESS, AND HIS PLEA FOR FAIR JUDGMENT OF THE ARMY — THE MAIN MATTER OF SENATOR HOAR'S CRITICISM OF OUR POLICY — THE PROBLEM AS SEEN BY A WRITER IN THE PHILIPPINE SERVICE

[A man might go over the whole large body of the literature of the Philippine question, and he might secure statements from all who have explained it and debated it, but no two utterances could be found so clear and so earnest as President Roosevelt's own explanation made in his Memorial-Day address at Arlington Cemetery and as Senator Hoar's recent speech in opposition to the Philippine bill.—ED.]

PRESIDENT ROOSEVELT'S MEMORIAL-DAY ADDRESS

THE President said: Mr. Commander, comrades, and you men and women of the United States who owe your being here to what was done by the men of the great Civil War, I greet you and thank you for the honor done me in asking me to be present this day.

It is a good custom for our country to have certain solemn holidays in commemoration of our greatest men and of the greatest crises in our history. There should be few such holidays. To increase their numbers is to cheapen them. Washington and Lincoln—the man who did most to found the Union, and the man who did most to preserve it—stand head and shoulders above all our public men, and have by common consent won the right to this preëminence. Among the holidays which commemorate the turning points in American history, Thanksgiving has a significance peculiarly its own. On July 4 we celebrate the birth of the Nation; on this day, the 30th of May, we call to mind the deaths of those who died that the Nation might live,

who wagered all that life holds dear for the great prize of death in battle, who poured out their blood like water in order that the mighty National structure raised by the far-seeing patriotism of Washington, Franklin, Marshall, Hamilton, and the other great leaders of the Revolution, great framers of the Constitution, should not crumble into meaningless ruins.

You whom I address today and your comrades who wore the blue beside you in the perilous years during which strong, sad, patient Lincoln bore the crushing load of National leadership, performed the one feat, the failure to perform which would have meant destruction to everything which makes the name America a symbol of hope among the nations of mankind. You did the greatest and most necessary task which has fallen to the lot of any men on this Western Hemisphere. Nearly three centuries have passed since the waters of our coasts were first furrowed by the keels of the men whose children's children were to inherit this fair land. Over a century and a half of Colonial growth followed the settlement, and now for over a century and a quarter we have been a Nation.

During our four generations of National life we have had to do many tasks, and some of them of far-reaching importance; but the only really vital task was the one you did, the task of saving the Union. There were other crises in which to have gone wrong would have meant disaster; but this was the one crises in which to have gone wrong would have meant not merely disaster, but annihilation. For failure at any other point atonement could have been made, but had you failed in the iron days the loss would have been irreparable. the defeat irretrievable. Upon your success depended all the future of the people of this continent, and much of the future of mankind as a whole.

You left us a reunited country. You left us the right of brotherhood with the men in gray, who with such courage, and such devotion for what they deemed the right, fought against you. But you left us much more even than your achievement, for you left us the memory of how it was achieved. You, who made good by your valor and patriotism the statesmanship of Lincoln and the soldiership of Grant, have set as the standards for our efforts in the future both the way you did your work in war and the way in which when the war was over you turned again to the work of peace. In war and in peace alike your example will stand as the wisest of lessons to us and to our children and our children's children.

THE WAR IN THE PHILIPPINES

Just at this moment the army of the United States, led by men who served among you in the great war, is carrying to completion a small but peculiarly trying and difficult war in which is involved not only the honor of the flag, but the triumph of civilization over forces which stand for the black chaos of savagery and barbarism. The task has not been as difficult or as important as yours, but, oh, my comrades, the men in the uniform of the United States, who have for the last three years patiently and uncomplainingly championed the American cause in the Philippine Islands, are your younger brothers, your sons. They have shown themselves not unworthy of you, and they are entitled to the support of all men who are proud of what you did.

These younger comrades of yours have fought under terrible difficulties, and have received terrible provocation from a very cruel and very treacherous enemy. Under the strain of these provocations I deeply deplore to say that some among them have so far forgotten themselves as to counsel and commit, in retaliation, acts of cruelty. The fact that for every guilty act committed by one of our troops a hundred acts of far greater atrocity have been committed by the hostile natives upon our troops, or upon the peaceable and law-abiding natives who are friendly to us, cannot be held to excuse any wrongdoer on our side. Determined and unswerving effort must be made, and is being made, to find out every instance of barbarity on the part of our troops, to punish those guilty of it, and to take, if possible, even stronger measures than have already been taken to minimize or prevent the occurrence of all such instances in the future.

Is it only in the army of the Philippines that Americans sometimes do acts that cause the rest of America to regret? [Cries of "Oh, no! no!"]

From time to time there occur in our country, to the deep and lasting shame of our people, lynchings carried on under circumstances of inhuman cruelty and barbarity—

a cruelty infinitely worse than any that has ever been committed by our troops in the Philippines; worse to the victims, and far more brutalizing to those guilty of it. The men who fail to condemn these lynchings, and yet clamor about what has been done in the Philippines, are indeed guilty of neglecting the beam in their own eye while taunting their brother about the mote in his. Understand me. These lynchings afford us no excuse for failure to stop cruelty in the Philippines. Every effort is being made, and will be made, to minimize the chances of cruelty occurring.

CRUELTIES EXAGGERATED

But keep in mind that these cruelties in the Philippines have been wholly exceptional, and have been shamelessly exaggerated. We deeply and bitterly regret that any such cruelties should have been committed, no matter how rarely, no matter under what provocation, by American troops. But they afford far less justification for a general condemnation of our army than these lynchings afford for the condemnation of the communities in which they have taken place. In each case it is well to condemn the deed, and it is well, also, to refrain from including both guilty and innocent in the same sweeping condemnation.

In every community there are people who commit acts of well-nigh inconceivable horror and baseness. If we fix our eyes only upon these individuals and upon their acts, and if we forget the far more numerous citizens of upright and honest life and blind ourselves to their countless deeds of wisdom and justice and philanthropy, it is easy enough to condemn the community. There is not a city in this land which we could not thus condemn if we fixed our eyes purely upon its police record and refused to look at what it had accomplished for decency and justice and charity. Yet this is exactly the attitude which has been taken by too many men with reference to our army in the Philippines, and it is an attitude both absurd and cruelly unjust.

The rules of warfare which have been promulgated by the War Department and accepted as the basis of conduct by our troops in the field are the rules laid down by Abraham Lincoln when you, my hearers, were fighting for the Union. These rules provide, of course, for the just severity necessary in war. The most destructive of all forms of cruelty would be to show weakness where sternness is demanded by iron need. But all cruelty is forbidden, and all harshness beyond what is called for by need. Our enemies in the Philippines have not merely violated every rule of war, but have made of these violations their only method of carrying on the war. We would have been justified by Abraham Lincoln's rules of war in infinitely greater severity than has been shown. The fact really is that our warfare in the Philippines has been carried on with singular humanity. For every act of cruelty by our men there have been innumerable acts of forebearance, magnanimity, and generous kindness. These are the qualities which have characterized the war as a whole. The cruelties have been wholly exceptional on our part.

The guilty are to be punished, but in punishing them, let those who sit at ease at home, who walk delicately and live in the soft places of the earth, remember, also, to do them common justice. Let not the effortless and the untempted rail overmuch at strong men who with blood and sweat face years of toil and days and nights of agony, and at need lay down their lives in remote tropic jungles to bring the light of civilization into the world's dark places. The warfare that has extended the boundaries of civilization at the expense of barbarism and savagery has been for centuries one of the most potent factors in the progress of humanity. Yet from its very nature it has always and everywhere been liable to dark abuses.

It behooves us to keep a vigilant watch to prevent these abuses and to punish those who commit them, but if because of them we flinch from finishing the task on which we have entered, we show ourselves cravens and weaklings, unworthy of the sires from whose loins we sprang. There were abuses and to spare in the Civil War. Your false friends then called Grant a "butcher" and spoke of you who are listening to me as mercenaries, as "Lincoln's hirelings." Your open foes—as in the resolution passed by the Confederate Congress in October, 1862,—accused you, at great length, and with much particularity, of "contemptuous disregard of the usages of civilized war," of subjecting women and children to "banishment, imprisonment, and

death;" of "murder," of "rapine," of "outrages on women," of "lawless cruelty," of "perpetrating atrocities which would be disgraceful to savages;" and Abraham Lincoln was singled out for especial attack because of his "spirit of barbarous ferocity." Verily, these men who thus foully slandered you have their heirs today in those who traduce our armies in the Philippines, who fix their eyes on individual deeds of wrong so keenly that at last they become blind to the great work of peace and freedom that has already been accomplished.

Peace and freedom—are there two better objects for which a soldier can fight? Well, these are precisely the objects for which our soldiers are fighting in the Philippines. When there is talk of the cruelties committed in the Philippines, remember always that by far the greater proportion of these cruelties have been committed by the insurgents against their own people—as well as against our soldiers—and that not only the surest but the most effectual way of stopping them is by the progress of the American arms. The victories of the American army have been the really effective means of putting a stop to cruelty in the Philippines. Wherever these victories have been complete—and such is now the case throughout the greater part of the islands—all cruelties have ceased, and the native is secure in his life, his liberty, and his pursuit of happiness. Where the insurrection still smolders there is always a chance for cruelty to show itself.

PURPOSES OF THE WAR

Our soldiers conquer, and what is the object for which they conquer? To establish a military government? No. The laws we are now endeavoring to enact for the government of the Philippines are to increase the power and domain of the civil at the expense of the military authorities, and to render even more difficult than in the past the chance of oppression. The military power is used to secure peace, in order that it may itself be supplanted by the civil government. The progress of the American arms means the abolition of cruelty, the bringing of peace,and the rule of law and order under the civil government. Other nations have conquered to create irresponsible military rule. We conquer to bring just and responsible civil government to the conquered.

But our armies do more than bring peace, do more than bring order. They bring freedom. Remember always that the independence of a tribe or a community may, and often does, have nothing whatever to do with the freedom of the individual in that tribe or community. There are now in Asia and Africa scores of despotic monarchies, each of which is independent, and in no one of which is there the slightest vestige of freedom for the individual man. Scant indeed is the gain to mankind from the "independence" of a blood-stained tyrant, who rules over abject and brutalized slaves. But great is the gain to humanity which follows the steady though slow introduction of the orderly liberty, the law-abiding freedom of the individual, which is the only sure foundation upon which national independence can be built. Wherever in the Philippines the insurrection has been definitely and finally put down, there the individual Filipino already enjoys such freedom, such personal liberty, under our rule, as he could never even dream of under the rule of an "independent," Aguinaldian oligarchy.

The slowly learned and difficult art of self-government, an art which our people have taught themselves by the labor of a thousand years, cannot be grasped in a day by a people only just emerging from conditions of life which our ancestors left behind them in the dim years before history dawned. We believe that we can rapidly teach the people of the Philippine Islands not only how to enjoy but how to make good use of their freedom, and with their growing knowledge their growth in self-government shall keep steady pace. When they have thus shown their capacity for real freedom by their power of self-government, then, and not till then, will it be possible to decide whether they are to exist independently of us or be knit to us by ties of common friendship and interest. When that day will come it is not in human wisdom now to foretell. All that we can say with certainty is that it would be put back an immeasurable distance if we should yield to the counsels of unmanly weakness and turn loose the islands, to see our victorious foes butcher with revolting cruelty our betrayed friends, and shed the blood of the most humane, the most enlightened, the most peaceful, the wisest and the best of their own number—

for these are the classes who have already learned to welcome our rule.

Nor, while fully acknowledging our duties to others, need we forget our duty to our own country. The Pacific seaboard is as much to us as the Atlantic; as we grow in power and prosperity so our interests will grow in that farthest West which is the immemorial East. The shadow of our destiny has already reached to the shores of Asia. The might of our people already looms large against the world-horizon; and it will loom ever larger as the years go by. No statesman has a right to neglect the interests of our people in the Pacific; interests which are important to all our people, but which are of most importance to our people who have built thriving States on the Western slope of our continent.

This should no more be a party question than the war for the Union should have been a party question. At this moment the man in highest office in the Philippine Islands is the Vice-Governor, General Luke Wright, of Tennessee, who gallantly wore the gray in the Civil War and who is now working hand in hand with the head of our army in the Philippines, Adna Chaffee, who in the Civil War gallantly wore the blue. Those two, and the men under them, from the North and from the South, in civil life and in military life, as teachers, as administrators, as soldiers, are laboring mightily for us who live at home. Here and there black sheep are to be found among them; but taken as a whole they represent as high a standard of public service as this country has ever seen. They are doing a great work for civilization, a great work for the honor and the interest of this nation, and above all for the welfare of the inhabitants of the Philippine Islands. All honor to them; and shame, thrice shame, to us if we fail to uphold their hands.

SENATOR HOAR'S SPEECH

ON May 22d, speaking on the Philippine bill, Senator Hoar of Massachusetts, concluded his speech as follows:

The American people have got this one question to answer. They may answer it now; they can take ten years, or twenty years, or a generation, or a century to think of it. But it will not down. They must answer it in the end—Can you lawfully buy with money, or get by brute force of arms, the right to hold in subjugation an unwilling people, and to impose on them such constitution as you, and not they, think best for them?

We have answered this question a good many times in the past. The fathers answered it in 1776, and founded the Republic upon their answer, which has been the cornerstone. John Quincy Adams and James Monroe answered it again in the Monroe Doctrine, which John Quincy Adams declared was only the doctrine of the consent of the governed. The Republican party answered it when it took possession of the forces of Government at the beginning of the most brilliant period in all legislative history. Abraham Lincoln answered it when, on that fatal journey to Washington in 1861, he announced that the doctrine of the consent of the governed was the cardinal doctrine of his political creed, and declared with prophetic vision, that he was ready to be assassinated for it if need be, You answered it again yourselves when you said that Cuba, who had no more title than the people of the Philippine Islands had to their independence, of right ought to be free and independent.

The question will be answered again hereafter. It will be answered soberly and deliberately and quietly as the American people are wont to answer great questions of duty. It will be answered, not in any turbulent assembly, amid shouting and clapping of hands and stamping of feet, where men do their thinking with their heels and not with their brains. It will be answered in the churches and in the schools and in the colleges; and it will be answered in fifteen million American homes, and it will be answered as it has always been answered. It will be answered right.

A famous orator once imagined the nations of the world uniting to erect a column to jurisprudence in some stately capital. Each country was to bring the name of its greatest jurist to be inscribed on its side of the column, with a sentence stating what he and his coun-

try through him had done toward establishing the reign of law in justice for the benefit of mankind. Rome said: "Here is Numa, who received the science of law from the nymph Egeria in the cavern and taught its message to his countrymen. Here is Justinian, who first reduced law to a code, made its precepts plain, so that all mankind could read it, and laid down the rules which should govern the dealing of man with man in every transaction of life." France said: "Here is D'Aguesseau, the great chancellor, to whose judgment seat pilgrims from afar were wont to repair to do him reverence." England said: "Here is Erskine, who made it safe for men to print the truth, no matter what tyrant might dislike to read it." Virginia said: "Here is Marshall, who breathed the vital principle into the Constitution, infused into it, instead of the letter that killeth, the spirit that maketh alive, and enabled it to keep State and nation each in its appointed bounds, as the stars abide in their courses."

I have sometimes fancied that we might erect here in the capital of the country a column to American Liberty which alone might rival in height the beautiful and simple shaft which we have erected to the fame of the Father of his Country. I can fancy each generation bringing its inscription, which should recite its own contribution to the great structure of which the column should be but the symbol.

The generation of the Puritan and the Pilgrim and the Huguenot claims the place of honor at the base. "I brought the torch of freedom across the sea. I cleared the forest. I subdued the savage and the wild beast. I laid in Christian liberty and law the foundations of empire." The next generation says: "What my fathers founded I builded. I left the seashore to penetrate the wilderness. I planted schools and colleges and courts and churches." Then comes the generation of the great colonial day. "I stood by the side of England on many a hard-fought field. I helped humble the power of France. I saw the lilies go down before the lion at Louisburg and Quebec. I carried the cross of St. George in triumph in Martinique and the Havana. I knew the stormy pathways of the ocean. I followed the whale from the Arctic to the Antarctic Seas, among tumbling mountains of ice and under equinoctial heat, as the great English orator said, 'No sea not vexed by my fisheries; no climate not witness to my toils.'"

Then comes the generation of the Revolutionary time. "I encountered the power of England. I declared and won the independence of my country. I placed that declaration on the eternal principles of justice and righteousness which all mankind have read, and on which all mankind will one day stand. I affirmed the dignity of human nature and the right of the people to govern themselves. I devised the securities against popular haste and delusion which made that right secure. I created the Supreme Court and the Senate. For the first time in history I made the right of the people to govern themselves safe, and established institutions for that end which will endure for ever."

The next generation says, "I encountered England again. I vindicated the right of an American ship to sail the seas the wide world over without molestation. I made the American sailor as safe at the ends of the earth as my fathers had made the American farmer safe in his home. I proclaimed the Monroe Doctrine in the face of the Holy Alliance, under which sixteen Republics have joined the family of nations. I filled the Western Hemisphere with Republics from the lakes to Cape Horn, each controlling its own destiny in safety and honor."

Then comes the next generation: "I did the mighty deeds which in your younger year you saw and which your fathers told. I saved the Union. I put down the rebellion. I freed the slave. I made of every slave a freeman, and of every freeman a citizen, and of every citizen a voter."

Then comes another who did the great work in peace, in which so many of you had an honorable share: "I kept the faith. I paid the debt. I brought in conciliation and peace instead of war. I secured in the practice of nations the great doctrine of expatriation. I devised the homestead system. I covered the prairie and the plain with happy homes and with mighty States. I crossed the continent and joined together the seas with my great railroads. I declared the manufacturing independence of America, as my fathers affirmed its political independence. I built up our vast domestic commerce. I made my country the richest, freest,

strongest, happiest people on the face of the earth."

And now what have we to say? What have we to say? Are we to have a place in that honorable company? Must we engrave on that column, "We repealed the Declaratoin of Independence. We changed the Monroe Doctrine from a doctrine of eternal righteousness and justice, resting on the consent of the governed, to a doctrine of brutal selfishness, looking only to our own advantage. We crushed the only Republic in Asia. We made war on the only Christian people in the East. We converted a war of glory to a war of shame. We vulgarized the American flag. We introduced perfidy into the practice of war. We inflicted torture on unarmed men to extort confession. We put children to death. We established reconcentrado camps. We devastated provinces. We baffled the aspirations of a people for liberty?"

No, Mr. President. Never! Never! Other and better counsels will yet prevail. The hours are long in the life of a great people. The irrevocable step is not yet taken.

Let us at least have this to say: We, too, have kept the faith of the Fathers. We took Cuba by the hand. We delivered her from her age-long bondage. We welcomed her to the family of nations. We set mankind an example never beheld before of moderation in victory. We led hesitating and halting Europe to the deliverance of their beleaguered ambassadors in China. We marched through a hostile country—a country cruel and barbarous—without anger or revenge. We returned benefit for injury, and pity for cruelty. We made the name of America beloved in the East as in the West. We kept faith with the Philippine people. We kept faith with our own history. We kept our national honor unsullied. The flag which we received without a rent we handed down without a stain.

THE OPINION OF AN AMERICAN IN THE PHILIPPINES

BY

JAMES A. LE ROY

WHO HAS BEEN IN THE SERVICE OF THE PRESENT PHILIPPINE COMMISSION SINCE IT WAS APPOINTED, AND WHO IS NOW IN THE UNITED STATES ON LEAVE OF ABSENCE

ONE who comes back from direct work and study in the Philippines is at first somewhat surprised to find that there is still an honest difference of opinion about the "fundamentals" of the Philippine question. But the discussion of the last few months seems to show that there is such a difference. It was assumed after the election of 1900, that, (except a certain element of irreconcilables who declined to consider either facts or arguments that made against their preconceived notions) the American people considered two propositions well established. These were:

(1) The Filipinos are not now prepared to maintain an independent, national government, and it is not possible to say when they will be fitted to do so.

(2) Whether or not we desired the task, it was our duty to establish order, and to lay at least the foundations of a prosperous state in those islands—a duty we owe to them, to ourselves and to the rest of the world.

But it is evident that many persons have lately been led, by conflicting testimony, away from those main propositions to a consideration of merely incidental matters; and these incidentals have been greatly exaggerated; and there has been a tendency to forget entirely the fundamental propositions themselves. If these propositions were wrong, now is the time to change our policy. If they were and are correct, then there is no use in seeking an "easy way" out of the Philippine difficulties. We must simply go ahead and do the task.

Senator Hoar, in his speech of May 21st, made opposition to our course and he made it on broad grounds. He assumed that we are oppressing the Filipinos, "subjugating a sullen people." His conclusion follows logically. If he is correct in his underlying premises, viz: that the Filipinos are today a people, and that they all cherish an undying hatred of us, his contention is sound.

Holding fast to his fundamental proposi-

tion, let us for the argument's sake accept the "consent of the governed" theory literally; let us proceed on the assumption that any people can govern themselves better than any other people can govern them; let us grant that the Tagalogs in their six provinces in proximity to Manila can manage for themselves a government on the whole better for them than a government that we superintend in their interests—what then? Can the Tagalogs also govern the Visayans, or the Ilocanos, or the Bicols, better than the Visayans, the Ilocanos or the Bicols can govern themselves? Does anyone who has studied the question on the ground maintain that a mixed government of these civilized tribes would hold together? And if so, how would they meet the Moro problem?

The truth is, the Tagalogs, the Visayans, and the rest do not form a people, but a group of communities. Kindred as they are in origin, in religion, in customs and in most things but language, it is the most serious charge that can be brought against the Spanish Government of the islands that it tended to keep them apart, to stifle all growth of a patriotic spirit by its economic, political and religious policies. The Spaniards kept them separate. And at least one good result to these natives has come of the warfare of Filipino against us—the dawning of a real national spirit, an ideal perceived by some Filipinos long since, but just now beginning to be dimly understood by the mass of them. The difference between our policy and Spain's is indicated by our wish to foster this national unifying spirit. No one who knew the aims of José Rizal, the Filipino patriot, can affirm that he would have been anything but an "Americanista" if he were alive today. To the hour of his execution, he protested that he had not preached revolution, but evolution. His books had as their central purpose to show to his people their own defects, to point out to them that in order to achieve freedom, they must deserve it.

Again, it is contended that if we now promise to give the Filipinos independence as soon as they are able to profit by it, all opposition will cease. No one who has studied on the spot the character of the men who, since the surrenders of early 1901, have been fostering the dying opposition to us, believes that such a promise would quiet them. How long would it be before Pedro Paterno, for instance, or some of the Spanish journalists who conduct a campaign of insinuation against us in Manila would be pressing for a statement as to just when we would withdraw? Some of the advocates of this "promise" policy concede that it may be fifty years hence, or more, before we could fulfill it. Would not such an indefinite declaration prove embarrassing?

Those who embarrass the Government in the islands by continually pressing this subject raise the broader question about the attitude of the Filipino people towards us. Do they all cherish an undying hatred of us? Governor Taft and his associates are our best witnesses; and their opinions are known. But they are not the only witnesses. The Filipinos of all but three civilized provinces have accepted in good faith the degree of popular government outlined in the provincial and municipal codes and have, for periods from six months to a year and a half, been peacefully living under them.

"But, we prefer," say some, "to take the testimony of army officers who have known the people more intimately." Then, logically, they should accept the further opinion of the majority of these officers that the civil government that these people should be ruled only through fear.

If these people are oppressed they give strange testimony to it by the affection and respect which they indisputably feel for Governor Taft. He and his colleagues consider themselves friends of the Filipinos, and they have abundant evidences that the feeling is reciprocated. One must come to the United States to learn that they are regarded by the Filipinos as tyrants.

There seems to me nothing but destruction in the present opposition to our Philippine policy. In the Philippine Islands, by way of contrast, there is something constructive to offer. There is order throughout almost all the territory of the civilized inhabitants, its maintenance being a police proposition; there is a very general willingness to repose confidence in the will and the power of the American people to do full and final justice there—a confidence that some of our own citizens do not seem to possess; there is an immense educational undertaking, now only in its beginnings, based on the principle that the Filipinos, of all classes, are entitled to a fair prepa-

ration for life and work among their fellows; and the new industrial and economic régime in the Philippines proceeds along the American lines of free inter-communication of trade and of thought.

Taxes can no longer be levied on the peasant who brings his few products to market in the town from some outlying region or from a neighboring town. No more can tariffs be placed on the free interchange of products from the provinces to Manila, or from island to island. All those uneconomic, unsocial restrictions of a past régime have been swept into the limbos of a dying mediævalism. The best educated Filipino is beginning dimly to perceive what is implied in freedom of communication and freedom of industrial activity. Side by side with a changed economic policy of government goes the attempt to furnish the kindred tribes a common medium of speech. Steam and electric railroads, better inter-island communication, better newspapers—all the things that go with such an expanding state of society—these will come even more slowly. And for the benefit of those who carp about "exploitation," let it be recalled that the efforts to educate the Filipinos are made honestly in the belief that they are entitled to a fair trial.

I have but hinted at some of the possibilities of the future in the Philippines. Shall we dogmatically predict disaster on the ground that economic, social, religious and political freedom are not possible in the Orient, or shall we go ahead with an honest effort to realize them? Almost as bad yet, shall we stop in our efforts to thresh over non-essentials or to re-argue a policy with which we are making good progress?

CONSERVING WASTE PRODUCTS

MODERN commercial chemistry knows no such thing as dirt, in the old and simple sense: nowadays it is hardly safe to say of any kind of residual product that a use may not conceivably be found for it. By a report of the operations of a charcoal-pit blast-furnace in a Western State, it appears that by means of stills enough has been saved from the smoke to pay a large portion of the running-expenses. The figures go to show that a cord of wood makes 28,000 feet of smoke; and in the smoke of a hundred cords there are 12,000 pounds of acetate of lime, twenty-five pounds of tar and two hundred gallons of alcohol.

Tin cans formerly served only to make sport for the urchins of the streets; but nowadays the tops and bottoms, melted down, are made into window-weights; the sides are rolled out flat and used to sheath large traveling-trunks; the solder from the seams is worth twelve cents a pound to the plumber. "Tin" cans are extensively used in France for making "pewter" soldiers. "Tin," be it understood, as applied to the commercial article, is a misnomer; the "tin" can is made of tinned sheet-iron, which we call tin-plate.

In New York the business of collecting and disposing of sawdust is an industry of not inconsiderable proportions. The number of sawdust vendors is something like five hundred. A capital of $200,000 is invested in the industry, and the business done amounts annually to $2,000,000. Sawdust now commands a price of $3.50 per load at the mill; forty years ago it was mere rubbish,—anybody might have it for nothing who was

willing to take the trouble of carting it away. In Germany they make sawdust into fuel bricks; in this country we use it on the floors of restaurants and bar-rooms to lay the dust raised in sweeping; it is employed by plumbers to deaden floors and walls; packers of fragile articles use quantities of it; dolls are stuffed with it. The best sawdust comes from the yellow pine. In general, the lighter the wood, the more available the dust. Black walnut dust is of little use to anyone.

Very good glass is made of the slag or refuse of mines and furnaces. as well as paving blocks and bricks. Ground with six per cent. of slaked lime it makes building mortar; ornamental copings and moldings, window sills and chimney-pieces are fashioned of it. Slag-bricks are five times as permeable as the common building bricks. The slag of puddling and Thomas pig iron is the best for making brick; Bessemer and foundry slag is next best. At certain plants in Germany slag-bricks are made at a cost of ten shillings per thousand. In the manufacture of a thousand of brick, 6,000 to 7,000 pounds of granulated slag and 450 to 700 pounds of burned lime are consumed.

A recent and important use of slag is for steam-pipe and boiler-wrappings, in which form it is called silicate cotton. Coal slag is a capital structural material, of which French builders were the first to avail themselves. Mixed with slaked lime it stiffens into a hard concretion which is in a high degree fire-proof. In the case of a nitrobenzine factory which burned to the ground, a heat that sufficed to melt the machinery had no apparent effect upon the walls of coal-slag brick beyond glazing the surfaces. When the factory was reconstructed, the walls were found to be intact, and quite able to sustain the weight of the beams and the roof.

Attempts have recently been made in Germany to fire furnaces with coal dust, introduced into the furnaces by means of a fan-blower. In general, these efforts have met with no great success. By the Schwarzkopf apparatus, however, the essential feature of which is a highly heated fire-chamber, it is possible to utilize slack or low-grade coal which would otherwise be of little value as fuel. In line with these attempts, an important development in Germany is the use of the waste gases from blast furnaces in operating gas-engines. By this means, according to an English journal, a saving of five shillings per ton is effected, or £2,190,000 on the entire raw iron production of Germany.

YALE FORESTERS AT WORK

NINE expert young foresters, composing the senior class of the Yale Forest School, are doing a piece of work on the great Orange County, N. Y., estate of Mr. E. H. Harriman, near Tuxedo Park, which promises results altogether novel in forestry. A plan for the management of the timber is being prepared by the students at Mr. Harriman's own request, and at the same time studies of the habits of trees are being carried on along new and independent lines. Of all professions open to young men in this country, forestry alone permits the student just out of school to plunge immediately into original work, and gives him the chance to do what has never been done before. Research work of the most fascinating kind invites him to make his life count. So much remains to be done in forestry that he is embarrassed to know in what direction of this fertile field first to direct his energies.

Of the kind of work which young foresters are permitted to do, a description of what is now going on at the Harriman estate should afford a luminous example. The estate comprises 20,000 acres, of which 15,000 are in typical New England hardwoods of second growth. From fifty to seventy-five years ago the tract was cut over for charcoal, but has been untouched since; in consequence, the woods are in a rather bad condition, being filled with dead timber and with suppressed trees which have to be removed for the benefit of others more valuable. The problem of putting this timberland into first-class condition is a simple one, for the reason that Mr. Harriman demands no immediate revenue but is content to treat his forest purely for its improvement.

The entire 15,000 acres have been divided into compartments, like those of the forests of Germany and France, and for each compartment a separate system of management will be devised. These compartments represent types of forest, and each differs more or less in the density of its stand, the variety of its species or the condition of its ground cover from every other compartment. A forest map has been prepared showing the boundaries of the compartments, so that by consulting both map and working plan the owner can inform himself at a glance concerning the forest conditions on any part of his estate. He can tell also just how much timber he can safely cut out of each compartment from year to year so as to keep his woods in prime condition, what species he must take out, and the best rules to adopt in making the

cuttings. The profits and the cost of management will be calculated; and recommendations for the establishment of a system of fire-lines along the drives and bridle-paths will be included in the plan.

Aside from the plan of management, which is directly for Mr. Harriman's benefit, studies of tree-habits—silvicultural studies they are technically called—are being carried on. One of the weak points in forestry in this country is that general impressions rather than exact knowledge exist concerning our forest trees. It is important that we know something definite about tree-habits. The man who would handle the hickory in a forest to best advantages hould know all about the species, and every method devised for making him better acquainted with it is a distinct advance in forestry. The oaks, the chestnut, the tulip tree—what do we know of their habits? Very little, and what we do know is inexact. How account for the remarkable adaptive powers of the red cedar, which is found growing both in the swamps and on the dry, sterile sides of precipitous slopes? What laws govern the strange choice of the white cedar, which in the Adirondacks appears and disappears apparently without reason?

Much important work along the lines of investigating the laws which govern the distribution of the different species on the Harriman estate has been done by the young foresters. The 15,000 acres contain trees typical of all New England, and discoveries made there will have a wide application. Each man has taken a number of species to investigate; he is tracing his trees all over the estate, searching them out in hills, swamps, valleys and flats, and noting carefully their condition, age, rate of growth, and percentage in the mixture. Growth and age are determined by counting the width and number of the annual rings on felled trees. The per cent. in the mixture is learned by selecting a sample plot which fairly represents a type of the forest, and counting the number of trees of each species on it. This, together with the record of the diameter of each individual tree, obtained by callipering it, constitutes the principal part of what is technically known as the valuation survey.

The students have devoted a great deal of their time to the effects of fire. An excellent opportunity is afforded by the presence of several acres of land in the tract on which eighty per cent. of the timber has been killed by fire. Valuation surveys and stem analyses of the dead and living trees will be made over the most of this land.

The reproduction of forest trees is of the highest importance, but little is known about it in this country. We know, for instance, that spruce and fir reproduce under heavy shade, that birch and aspen generally seed up the openings made by cuttings, wind slashes and fires, but we do not know just what are the conditions best suited for the reproduction of each of the different species. To study the reproduction of the forest a most ingenious idea will be tried. It is necessary first to know, in such a study, the density of the forest canopy in order to determine the relative effects of shade on the different kinds of seedlings. The ability of a tree to grow in the shade is known among foresters as its tolerance. The more shade a tree can bear the higher is its degree of tolerance; but the difficulty has been that no exact method has yet been found, either here or in Europe, of constructing scales of tolerance for the different species. In order to solve the problem it is first necessary to measure the amount of shade cast by the forest canopy. A plan of doing this by means of sensitized paper will be tried. The paper will be exposed at different points in the forest, and from the effect of light on it the density of the canopy at each place will be calculated. A definite space will be measured off wherever the paper was exposed and the number of seedlings of each species that are found coming up will be carefully counted. The presence or absence of small seedlings of a species on the forest floor, when seed trees are present and other factors are favorable, must determine its ability or inability to survive in that degree of shade which the sensitized paper has shown to exist. After balancing the results of all the observations, the position of each of the more valuable species in the scale of tolerance should be determined. If the students succeed in working out the tolerance problem in the Harriman woods they will have established a scale to which many other species in different parts of the Atlantic states can be referred.

LAYING TWO MILES OF TRACK A DAY

IF a few years ago, it had been suggested to a practical maintenance-of-way man that he would take a train of ties and rails behind him, and with them construct a railroad, without even stopping the cars in their onward movement, the practical official would have given it little consideration. But even this has come about recently and it is likely to have an important influence upon all new railroad construction of the future.

Formerly it was necessary to haul the ties,

either by team from the nearest railroad or river base; or carry them, one at a time, from the small hand-car which brought them to the end of the newly laid track. Both methods were expensive, and slow; for oftentimes the country was rugged, or in other ways very ill adapted for "teaming," so that the only way of bringing the ties to the front was by hand. Then, after the ties were put in place, the rails must be laid upon them. To do this, it was necessary to bring a few at a time to the track-end on small cars, where they were carried to the place required by eight or ten men, there to be connected and spiked.

Lately, however, some improvement has been made upon these ancient methods of track laying by the introduction of two machines of quite different character. One of them is a device by which a system of rollers is atttached to the sides of flat cars, enabling men with pike poles to push the ties along to the front of the train, where they drop to the ground, from whence they are carried forward the necessary distance by hand. The other consists of a rail laid on extended supports, on either side of the flat cars, on which a tram car, with large wheels, (the wheels being large enough to allow it to pass over the rails, which are loaded on the front flat cars) is loaded with ties, and run to the front of the machine, where it drops, on a sharp incline, to a stop-block, in such a manner that the ties are dumped on the ground some twenty feet ahead of the train. They are then carried ahead the required distance by hand. Neither machine, however, handles the rails, and it is still necessary to employ a large force of men to perform the heaviest kind of labor; for the advent of the 100-pound rail makes their task much more irksome than before. And so this new invention comes as a boon to both laborer and capitalist.

A new track-laying machine which is successfully laying track on a new line under construction for the Bessemer & Lake Erie R.R., near Greenville, Pa., has the distinction of being the first machine ever built that handles both ties and rails, together with its own construction train by steam power. With it thirty-five men do the work that at present it requires one hundred and fifty to do; for the machine does all of the lifting, placing both ties and rails in position to be connected and spiked.

It consists of a car fifty-five feet long, from the front end of which extends a sixty-five foot steel truss. This truss is fitted, on the under side, with power rollers, which bring the rails from the machine forward the required distance, where they are grappled by specially constructed tongs, and lowered to the ties. An endless chain conveys the ties over the top of the truss to its extreme end, where they are dropped one at a time, as the machine moves forward, thus spacing them. This leaves nothing to be done by hand except the straightening, which is accomplished with but little effort by two men.

In the machine itself, are a pair of one hundred horse-power reversible stationary engines, which furnish all the power necessary for operating the machine in all its parts, besides propelling its construction train, of from sixteen to eighteen cars, along the track. The manner of loading the material, and getting it on the machine is very simple. A train of ordinary flat cars (cars without sideboards) are equipped with two small iron rollers, which are spiked to the floor, one on either side. The cars nearest the machine are loaded with ties, which are placed crosswise, being kept about one foot from the car floor by laying the under tier length-wise of the cars. The rails are loaded on the cars farthest from the machine.

Now let us return to the machine. In it, on either side, is an upper and nether power-roller, which grasp the rails between them, thus furnishing the means by which the material is brought from the train. The rails, from these rollers back along the train, are all connected together by inserting one bolt in each end of their angle bars, making a continuous line, on either side, from the machine to the cars upon which the rails are loaded. As the rails are drawn forward into the machine, the men on the cars connect on additional rails; and these, moving forward on the rollers, pass directly under the ends of the ties loaded on the cars ahead. This enables two men, beginning at the first car, to place ties on the rails as closely together as desired, in this manner the moving rails bear the ties forward to the rear of the machine, where they are picked up by the endless chain and carried to the top of the truss. The rails, after passing through the rollers are disconnected, and run out into the truss, one at a time, as desired.

Of the many remarkable features about this most ingenious machine, perhaps the one most important is the gearing. This is so arranged that, as the train moves forward over the track, the material is made to move over the train at the same speed; or, to state it in another way, the material moves forward at just double the speed of the train. This makes possible the delivery of the material

ahead of the machine in just the proper quantity. By another ingenious arrangement the machine may move forward while the rails are being connected and spiked.

But the most wonderful thing about it is the fact that, with the comparatively small force of thirty-five men, it will lay two miles of track a day. A performance of this kind carries with it possibilities of economy which can scarcely be realized.

DRINKING WATER FOR THE BOERS

WHEN the Boer peace was signed, Colonel Leslie of the Royal Engineers in the fortress of Bermuda was in New York. He came to be present at the test of an American distilling ship ordered in the United States by the British Government for the purpose of turning salt water into fresh and supplying drinking water to the 4,500 Boer prisoners and 1,000 English guards on the little islands of the Great Sound at Bermuda. This vessel, the *Edgewater*, from a Yankeeized Bermudan in New Jersey, W. Blackburn Smith, M. E., is a floating distilling plant. There are only three or four vessels of her class in the world. Two of them are attached to the United States Navy. She is now going about among the island camps supplying the required three gallons of fresh water every day for the comfort of the men waiting for the transports that will return them to South Africa. The only fresh water in the Bermudas is rain water caught in cisterns and it has been a difficult task to get enough from the main island carried to the prison islands in small boats. The *Edgewater* will earn her living afterwards in supplying the British soldiers with water. She is a wooden steamship of 83 tons burden, 96 over all, with a Scotch boiler, a capacity of 25,000 gallons of water daily with a possible output of 50,000 gallons. The distilling plant has six evaporators, three distillers, and the necessary pumps and fixtures all enclosed in a deck-house that completely covers the vessel. Thus American ingenuity turns the sea into drinking water for the Boers at the British Government's order.

APPRENTICES AT SCHOOL

AS the perfecting of apprenticeship systems is a significant form of industrial activity, it is interesting to learn that in Chicago is such a system, maintained not as might be supposed by employers but by workmen. It is well known that trades-unions enforce restrictions regarding apprentices: the Bricklayers' and Stonemasons' Unions in Chicago not only compel apprentices to serve four years before becoming journeymen, but supervise the youths to the extent of obliging them to go to school.

The apprentices are paid by their employers $260 for the first year of service; $300 for the second year; $350 for the third year; and $400 for the fourth year. The schooling occupies one-fourth of the time—three months each year; and during the school periods the wages of the apprentices go on as during their actual working days. The apprentices not only study the common branches but do an extra amount of such work as drawing and geometry which bear directly on their trade. Every two weeks lectures are given by leading architects. And at the end of term time prizes are awarded to the most proficient pupils.

Just as in certain great industrial establishments, such as the Baldwin Locomotive Works, the employers insist on schooling for their apprentices, here the members of the craft show an interest in having their successors not only good practical workmen, but workmen able to perform with their brains as well as with their hands. Both aim to raise the efficiency of American labor.

BUILDING A STREET CAR LINE ON "APPROVAL"

INNUMERABLE instances have been cited of American business methods abroad which have made Europeans breathless with surprise. A recent bit of enterprise on the part of an American company appealed to Englishmen familiar with it, not so much for its spectacular quality as for what they considered its sporting phase.

An electric tramway line was to be installed at Wolverhampton and an American company was urging its particular "surface contact" system. The town authorities—for the town was building the line—demurred; they doubted the feasibility of such a form of electrical traction. But when the company offered to install the line and leave it on trial for a year before asking payment, contracting to ask for no payment at all unless the line proved satisfactory, the English fondness for a sporting offer was touched and the tender accepted. The cars are now running successfully. If nothing unforeseen occurs the company will receive the reward of its enterprise next April, and not only that but a certain prestige—for the success of their road is expected to affect the use of the overhead trolley system in other parts of England. It is pleasant to observe, moreover, that the English public hope the company will succeed.

Photographed by William H. Rau

ON THE TWENTY-HOUR "SPECIAL" FROM NEW YORK TO CHICAGO

"The fireman standing in the pit of the locomotive opened the furnace door and threw in a shovelful of coal; and the flames leaped out to lick the black chunks in"

(See page 2455)

THE WORLD'S WORK

AUGUST, 1902

VOLUME IV NUMBER 4

The March of Events

MIDSUMMER finds the people of our country in a cheerful holiday-mood, with many good reasons for it. Prosperity continues. More are able to take a holiday than on any previous summer. Bountiful crops, prosperous factories, railroads that earn dividends on cheap rates—these and what these imply give good reasons for cheerfulness to our industrious millions.

Most of the grave public problems that seriously engaged us a year ago have been solved or are under hopeful management: Cuba is a republic; peace has practically been won in the Philippines; the administration of our other island wards runs smoothly towards the building up of the people; we have at last committed our Government to the construction of an isthmian canal; the new President of the United States, who came into office by a crime that darkened the land a year ago, is the most inspiring influence throughout our national life that men have felt for a generation; we are at peace with all the world; our conquests are conquests of skill and trade; and these continue. Wealth accumulates but no one can fear that men decay under the influences that drive us forward to increasing national greatness.

It is a pleasant holiday reflection, made in thankfulness but not boastfully, that among the great forces of our time and of our country are these:

1. The social welfare of the masses continues to deepen and to spread. The practical art of living healthfully and well is acquired every year by an increasing multitude. The sanitary conquest over ignorance and neglect goes on at a rapid rate. The American children of today have not only a better chance of healthful life than the children of any preceding generation had, but they have also a more natural childhood; more of them grow up close to nature; more of them have good training and a fair start in life. So, too, the building-up of American womanhood goes on. A saner and better-balanced and more cheerful social life exists in almost every part of the land than existed a generation ago. The position of the first thousand women that a traveler might meet in a journey from Boston to St. Paul or from Buffalo to New Orleans is such as no corresponding thousand women ever held in the world before, in any time or in any land. So, too, goes on the building-up of good family stocks in our democracy—a greater and greater pride in good breeding. These are great social facts that make for cheerfulness, that glorify our national life and that keep every thoughtful man securely anchored in his democratic faith. Let any man who is world-weary and who, by reason of his own disappointments or of the squalor that he sees in densely settled cities, wanders to Europe to escape from him-

[illegible] his social fears—let any such man go into a hundred small towns in any dozen of our great commonwealths. He will find that [illegible] being outworn is [illegible] for the great masses of mankind. [illegible] a more hopeful and inspiring [illegible] than any social philosopher [illegible] about.

2. The [illegible] great [illegible] of American life [illegible] man may [illegible] and work for his own [illegible] and for the good of his fellows along the line of the least resistance. It is this fundamental quality of democratic society that is making us the most efficient people in the world at all practical tasks.

3. The growth of the religion of honest dealing and of good deeds is bringing a higher ethical standard although the authority of dogmatic religion declines.

4. The most important democratic fact of our time is the continued and accelerated development of the South—both the land and the people.

5. And the purity of our public life (in spite of the backwardness of municipal government) is greater than it was at any preceding time in our history.

It is large facts like these (and these are not all) that put the energetic and therefore well to do and hopeful American citizen in good humor with the world when he goes to the mountains or the seashore to rest a space and to look at his own problems from a calm distance. It matters little that he may not have thought out the reasons for his buoyant feelings, for he has a conviction born of successful work, that those who despair of the republic and see bad omens are fantastical in their thought. The man who does things gets renewed cheerfulness this year from his holiday.

PRACTICALLY A UNIVERSAL PEACE

THERE is now as nearly universal peace as a world that has constantly had wars may reasonably hope for. Hostility in the Philippines has practically ceased. As the President recently declared there is now less fighting there than there has been at any time perhaps within a century. While the islands were under Spanish rule we heard nothing of wars between the tribes or with the Spaniards. The street fights between rival parties in Hayti and the revolutionists' violence in South America—these are hardly worthy to be called war.

Students of international politics are asking themselves what danger there is of a possible conflict between important nations in the Far East. There is always the possibility of trouble in China. The Chinese themselves may again in some province resent the presence of foreigners or they may be goaded to make trouble by one foreign nation which seeks an advantage over another. Russia, even yet under suspicion, is reported to be about to evacuate Manchuria; but the Russian push forward never ends and Russian policy is continuous without regard to change of ministers or of Czars. Nor do the Japanese feel secure against Russian advance or insult. Still there is now no visible reason for fearing early war.

It is a pleasant reflection that among many agencies that make for peace such as the generally closer bonds that exist between the Great Powers, the increasing costliness of wars, the increasing danger of an almost universal conflict if two Great Powers should come into open hostility—in addition to all other strong reasons for peace, this is the strongest: that the intense struggle for trade would be interrupted by war. Every great military Power except Russia is also a great industrial Power. England lost trade during the South-African war, and any people would lose an industrial advantage that should take up arms. There have been many wars about commerce and there may be more. But the modern conditions of trade distinctly discourage armed hostilities as previous conditions did not. The industrial rise of the United States in addition to other benefits that it brings to mankind must have the credit also for being the strongest of all forces for keeping a world-wide peace. If any great World-force ever succeeds in causing disarmament in Europe, it may be the industrial rise of the United States.

A NOTABLE GROUP OF PUBLIC SERVANTS

PRESIDENT ROOSEVELT in his public addresses takes direct hold on men and things of immediate interest. His Memorial-Day address at Arlington did not consist of general propositions. It was a plea for fair judgment of the army in the

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JOSEPH JEFFERSON

WHO, EVEN IF HE WERE NOT IMMORTAL AS AN ACTOR, WOULD STILL BE FAMOUS AS A FISHERMAN, AS A GARDENER, AND AS A LOVER OF ALL FORMS OF OUTDOOR LIFE

Philippines and a definite explanation of our aim in administering the affairs of the islands. So, too, his speeches at Boston, especially his Harvard address, were about men that are now living, now working and now working well—men who are parts of the Administration—especially Governor Taft, General Wood, Secretary Hay, and Secretary Root. These, each at his own post, have done and are doing delicate, far-reaching historic tasks of the greatest public value. The President's praise of General Wood and of Governor Taft was well-won and well-given. It was an interesting revelation of the character of both men that the President is unwilling to appoint Governor Taft to the Supreme Bench because he is needed in the Philippines and that Governor Taft would not accept such an appointment because he prefers to carry on the work that he has in hand, and would prefer it even if he received no salary for doing it. Truly spoken, too, was President Eliot's praise of Secretary Hay who "by force of just and liberal thinking is the most successful diplomatist now living."

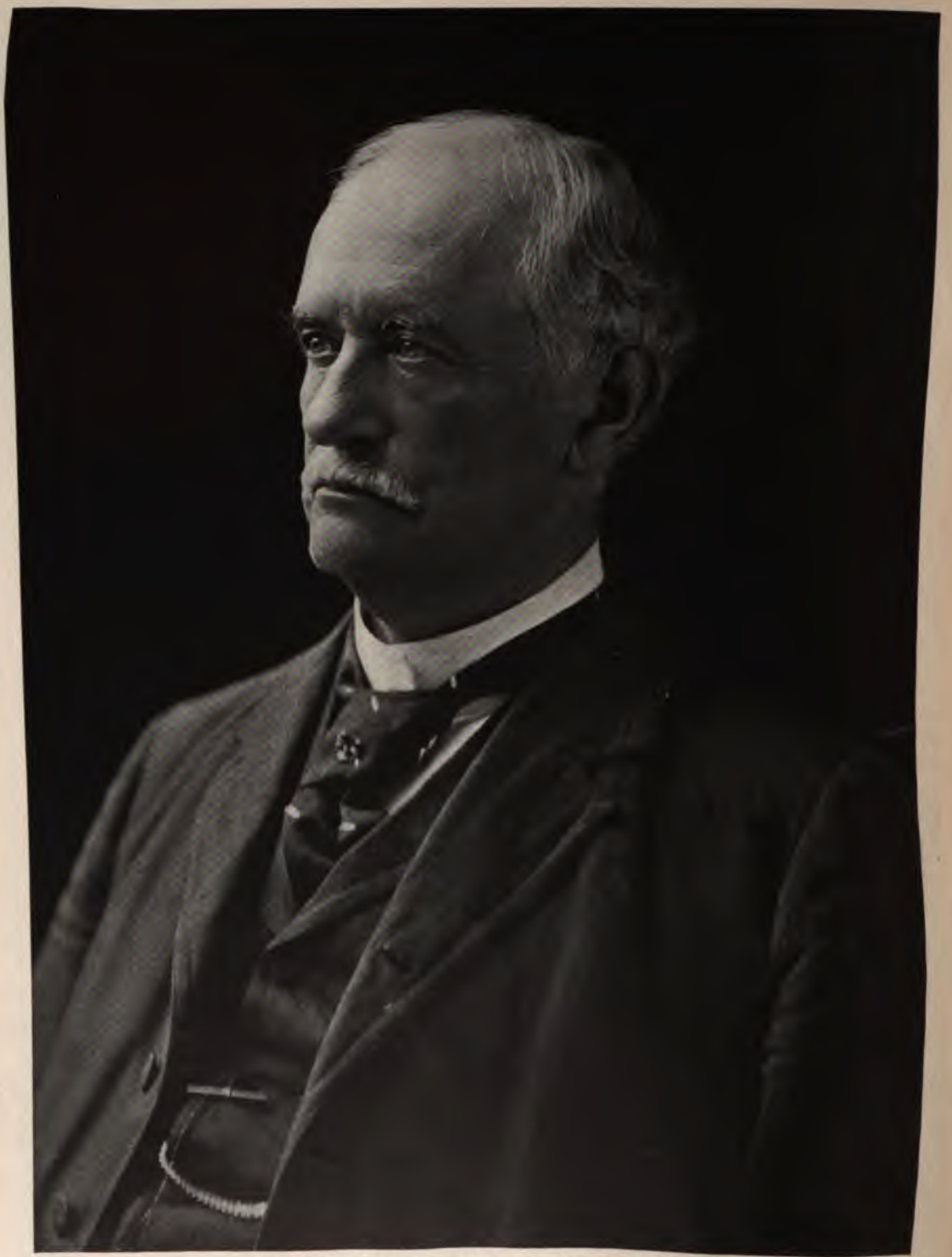
Let us praise men while they live for when they are dead we can pay them no debt of gratitude. President Roosevelt, President Eliot, ex-Secretary Long, president of the Harvard alumni, Secretary Moody, General Wood (all Harvard men), Secretary Hay, Secretary Root, Governor Taft—these that spoke and these that were spoken of surely make an extraordinary group. Every one of them except Mr. Eliot has spent most of his life in the Government's service, and he has spent all his life in the public service and a third of a century in as great an office as the high place held by any of the others. It is not a partisan view of these men to say that a government or a country or a time that has such public service as they render is fortunate. Our democracy is vindicating itself in the character of such public servants as these. Mr. Eliot's description of President Roosevelt as a "true type of the sturdy gentleman and high-minded public servant of a democracy" fits every man of them.

AN ISTHMIAN CANAL AT LAST

IT may well turn out in that final judgment day to which we love to refer great events of our own time—"when the future historian shall come to write"—that the most important act of this Congress or of many another one will be the passage of the isthmian canal bill. Any wandering New Zealander who may visit the ruins of Manhattan a century of centuries hence will probably make his archæological journey through this canal; for it will be one of two or three great achievements of man that are likely to take their places along with the elemental works of nature. It will be a part of the earth itself as long as the earth retains its present general structure and shape. We have yet done nothing in our conquest of the New World that has such a chance of permanence.

As the bill was passed it authorizes the President to buy the rights, franchises, etc., of the Panama Company for forty millions of dollars; and if a proper cession of land is given by Colombia, and if the Panama title be perfect, then he shall finish the Panama Canal at a cost of not more than one hundred and thirty-five millions. Otherwise he shall use the Nicaragua route at a cost of one hundred and eighty millions. A two-per-cent. popular loan of one hundred and thirty millions is to be issued.

The venerable Senator Morgan of Alabama, with an eye not only to the benefit of his own great part of the Union but to the development of our whole country, has for many years worked and talked towards definite action in cutting a canal. The great enterprise has had other friends many and powerful, and the practical work of passing the bill during this Congress, was done chiefly by others; but no other man has so resolutely and untiringly kept the great enterprise in the public mind. Witness his eight speeches during this last single session of Congress, filling 172 columns of the *Congressional Record*. No other man has so often expressed the wide-reaching benefits of such a highway between the great oceans of the globe. No other man has shown quite such a grasp of the great geographical, commercial and economic facts that lift the undertaking out of the category even of great government achievements. Senator Morgan contended long and stoutly for the Nicaragua route, which (as one friendly critic has said) became a sort of religion with him. The question of routes will soon be forgotten, but his long contention



SENATOR JOHN T. MORGAN, OF ALABAMA

WHO HAS FOR A LONG SERIES OF YEARS STRIVEN FOR THE BUILDING OF AN ISTHMIAN CANAL BY OUR GOVERNMENT

canal will link his memory with it per-
ılly. For in the future, when men find
rd to understand the party-differences
ır time and when our temporary fierce
cal squabbles have become meaningless,
will clearly understand the statesman-
that foresaw the world-wide results of
everlasting achievement. Senator Mor-
s to be congratulated on that large quality
ind which drove him to devote so much
e activity of his closing years to so great
ject.

EXPANSION BY IRRIGATION

far-reaching constructive value, too,
is the plan for irrigating the arid and
arid lands of the West. There has
rally been serious objection to the
onal Government's undertaking or be-
ng responsible for irrigation works. At
ame time it has long been evident that
er private enterprise nor even State
n or supervision could do this great
sary work of subduing a vast area to
uctive uses. There is now, for instance,
se pending between two States because
ation works in one cut off a water supply
the other. Some general and compre-
ve plan is necessary to avoid such local
ies and to utilize the water over the
est area possible.

e impropriety of direct appropriations
f the national treasury has been avoided
least an effort has been made to avoid it
the bill that passed Congress. The act
ry carefully drawn. The National Gov-
ent is to use the money received from the
of the public lands in the semi-arid
s (less the part of this fund that goes to
agricultural colleges) as a "revolving
" to construct irrigation works under
irection of the Secretary of the Interior.
lands are to be sold only to settlers and
rson may hold more than 160 acres, and
le shall be given except to a person who
een a settler on the land for five years.
and is to be paid for, to the Government,
n annual instalments. Thus in every
ears the Government will receive back
um invested ten years before. The sale
blic lands in these States yields about
nd a half millions a year.

e well-meant and carefully guarded
y is that the lands shall fall into the hands of actual settlers only, in small lots, and that no money for construction works shall come directly out of the treasury. The semi-arid region pays for its own irrigation.

If the plan works out (and there is every reason to think that it will) it will continue for a long time the beneficent results of the homestead act. It will add almost incalculably to our home-owning agricultural population and correspondingly to our products and resources. It will mean the addition to our productive area of a vast (and as yet unknown) empire of tillable land. It will in time add incalculably to the products of the great western half of the Union and consequently to the development of our Asiatic trade. The irrigation act provides for expansion within our own borders; and it is a constructive piece of work of vast magnitude and far-reaching value.

THE WAY CLEAR FOR THE BUILDING OF A PHILIPPINE NATION

WE have made a new era in the development of tropical peoples—there is no need to express it in less sweeping terms. Nor is it too much to say that our management of Cuba and of the Philippine archipelago is one of the most important events in modern history; for the proper development of the tropics and of their peoples is one of the most urgent problems in the world. By showing the way to solve it, we have made an administrative contribution to civilization that is second only to the development of our own republican institutions.

The ending of the war in the Philippines (the Moro islands only excepted); the proclamation of amnesty by the President on July 4 (making our Day of Independence of everlasting significance also to the Filipinos); the formal abolition of the military governorship; and Secretary Root's eloquent and stirring eulogy of the army for its service in Cuba and in the Philippines—these signify momentous and glorious triumphs of American character and efficiency in the high and difficult task of spreading republican civilization. No American citizen who has a proper historical perspective can fail to feel a thrill of pride when he contemplates these things.

Secretary Root's "General Order No. 66," to the Army of the United States, wherein he

briefly sketched its achievements, is the most notable document of its sort that has been issued since the Civil War. It is an admirable summary of two great events that reflect lasting honor on the Republic—the renovation of Cuba and the establishment of order in the Philippines.

Governor Taft's estimate of the army's work in the Philippines as an event of historic importance (for there has never before been a well-ordered peace there since the islands have been known to us), sets it in its true light. He speaks as one who knows its full meaning and appreciates the difficulties that have been overcome. He cabled from Rome his congratulations to Secretary Root on July 3rd in these words:

"I congratulate you on the accomplishment of the most important step in your great work of constructing a satisfactory civil government in the Philippine Islands. None but those acting under you can fully know the debt that the country owes you, for the courage and the original constructive genius involved in drafting your instructions of April, 1900, and informing a civil government without a precedent under the President's undefined authority as military Commander-in-Chief, almost within the sphere of war, which should furnish convincing proof to the Filipinos of the benefit of general peace under American sovereignty, or can realize the success of your plans in actual peace, and the vindication of them in the ratification of the Philippine Government act."

The negotiations, which so long kept Governor Taft in Rome, for the purchase by our Government of the lands of the friars, is as necessary a part of the freedom of the people as the overthrow of the insurgent leaders. This done, the long working-out of self-government becomes not an easy but a possible undertaking. The way is cleared for the building of a nation—cleared of both military and ecclesiastical hindrances.

PRACTICAL HELP FOR THE FILIPINOS

BUT our work in the Philippines is not yet done. There is a sense in which it is only begun. Since the political labors of those who have opposed the Government's policy must now cease (because peace is won and the way made clear to work towards self-government), it is to be hoped that they and all other patriotic citizens will help directly towards the development of these people. We have an army of teachers in the Philippines; and in every province and in every settlement are both American and native men and women who are giving their lives to the upbuilding of the people. Help them. There are no longer insurgents to send political literature to. Send good literature and encouragement to the leaders in peaceful pursuits. There is an obligation resting on all patriotic societies and all patriotic persons to contribute to the building-up of the character, the thrift, the intelligence and the independence of the Philippine tribes. There is an obligation upon all kinds of learned bodies to study the ethnology, the habits, the industries, of the Filipinos, to find out the resources and possibilities of these islands. Research and study may now for the first time be safely, easily and exhaustively done there. Philanthropy, learning and religion as well as constructive administration all have a virgin field which promises rich results.

THE NEGLECT OF CUBA AND THE DEMOCRATIC OPPORTUNITY

THE great omission of duty by Congress was its neglect to provide for the economic relief of Cuba. A reciprocity tariff act, whereby the chief products of the island might have come into our markets at a reduced rate and have brought a higher price to the Cuban planters, would have done us no economic hurt; and it would have enabled us to do our bounden duty to the Cubans. The melancholy moral is that private interests are stronger in Congress than a sense of public duty when the two converge where the tariff is affected.

Yet this is no new thing. It has been so for nearly forty years. It is, however, a singularly striking proof of the power of private interests when they are once entrenched behind the revenue-raising function of the Government.

The political situation caused by this disgraceful omission of duty is not half so complicated as the politicians make it out to be. It is reducible to very simple terms, thus—The Republican Congress has proved itself yet in servitude to high protection; the moral sense of the country is offended and it will assert itself; President Roosevelt and the Republicans who stood conscientiously for

Cuban reciprocity have won popular favor and their attitude is a valuable political asset for future use; and the Democrats have a strong campaign issue as a result of the whole matter.

This issue is not of very great party importance in this year's Congressional elections because the President and the mass of Republicans (see the resolutions of one State convention after another) are also on the side of reciprocity. But the "insurgent" Republican members of Congress who are blind enough to cling to High Protection as a fetish or to surrender to private interests—have given the general Democratic demand for tariff reduction in all future campaigns an immense impetus. For, of course, the historical, fundamental, unconquerable but now ill-led, petulant and incompetent great party will again have its day; and it will be likely to win its day on this same old issue.

WHY NOT SOUTHERN DEMOCRATIC LEADERSHIP?

IN fact, the Democratic party might have another season of power at no distant time if it could find leadership. Since Mr. Bryan began his series of progressive defeats, the party has dwindled, as Mr. Cleveland pointed out at the Tilden Club dinner in New York, to domination in the Southern States only. This geographical narrowing of it brought a chance to develop Southern leaders. It would be novel, interesting and wholesome if strong Southern leaders were again to appear in our national politics. No turn of events could be more welcome. There would be an historic and dramatic fitness in that rejuvenated great section of the Union asserting itself in a commanding political way.

But the Southern men now in public life have not risen to the national occasion. They seem never quite to lose sectional consciousness. Strong Southern men who do large tasks in finance and in commerce (and there are many of them) do them as men elsewhere do such tasks. They lay hold on great principles. They have no sectional consciousness. They do not go to their work as Southern men, but simply as men. But the Southern political leader is yet somehow "Southern." He has a nationality inside of a nationality. He is suspicious. He seems to belong to a special cult. He does not take up national problems as if they were his problems, but rather as if they were somebody else's whose work it was his duty to criticize. But out of those great commonwealths whose boundless white fields supply ever-increasing spindles and looms and whose diversified industries are now contributing to the wealth of the country, ought to come into political life men of larger minds and wider political vision,—men who see a higher duty than personal abuse of the only Democrat that has occupied the White House in nearly half a century. They ought to give up the eternal rôle of fault-finding and do constructive work.

THE WIDE CLEVELAND-BRYAN CHASM

THE violence of the inter-party criticism that was provoked by Mr. Cleveland's speech at the Tilden Club dinner in New York must have surprised those who take only a logical and not an emotional view of politics. Mr. Cleveland clearly intimated that recent Democratic defeats were caused by the free-silver propaganda and such unsound doctrines —truth, if ever truth was told. On the other side Mr. Bryan flew into a passion of personal abuse of Mr. Cleveland, and Mr. Watterson, editor of the Louisville *Courier-Journal*, and many other Southern Democrats followed him in the same tone, all accusing Mr. Cleveland of disrupting the party by playing into the hands of the rich.

It is worth recalling that Mr. Bryan's popular vote even in the year of his last defeat was enormous. While the bitter and foolish attacks on Mr. Cleveland indefinitely hinder party harmony and keep alive the commercial distrust of the Democratic party, they have a meaning that the sagacious student of American life must heed. It is the emotionalism of politics. It is the feeling that the average man is left out—that his wishes and his interests are neglected—that the East, as distinguished from the South and the West—has its undue share of wealth and of power and of influence. In one period of depression this emotionalism took the form of hostility to the railroads, and in another to a sound currency. It has not disappeared. It will reassert itself in some other form when hard times come again. In the long run it is wholesome. It acts both as a safety valve and as a

check. It is the cry of the masses against the classes—generally a blind cry and often a foolish one. But it is part of a democracy; and, as matters stand now, it is the Democratic party. It is a national misfortune that it has not wise leadership.

THE CONGRESSIONAL CAMPAIGN

AS the Congressional campaign comes on, the chances seems good that the Republicans will retain their majority in Congress. They have many positive achievements to their credit—all the extraordinary amount of constructive work done during the recent session; and they have reason to be grateful that the ship-subsidy bill was not enacted. But they have distinctly lost one great advantage that the party had, or seemed about to take, a year ago. Then there seemed a chance that extreme protection would yield to a policy of reciprocity. But the promise has been postponed if not lost. To recall the party sentiment that Mr. McKinley so forcibly and frequently expressed during the last year of his life and to compare it with the disgraceful failure even to give reciprocity to Cuba—this is a fair measure of the party's falling away from a good purpose. There has been a distinct slipping back, a serious moral lapse. The party is practically where it was years ago when Mr. Blaine foresaw that high protection must yield, and where it was when Mr. Cleveland won the Presidency because he stood for a tariff for revenue only. Similar leadership might now bring a similar result.

But the Democrats, too, have so suffered from a lack of leadership that they have forfeited the confidence of the independents who formerly made Democratic Congressional majorities and a Democratic President possible. If the parties be measured by the moral force that underlies them (and there is a moral quality, or the lack of it, at the bottom of every campaign), both now stand below the level they have previously held; but in practical results the Republicans make by far the better showing. They will have, however, to thank the Democratic lack of leadership for much of their victory in November. The fall elections of State legislatures will make a number of changes in the Senate. But it will continue to be Republican.

THE NON-PARTISAN CHARACTER OF THE MOST IMPORTANT CONGRESSIONAL WORK

IN considering the four great and far-reaching pieces of work that Congress did during the recent session, every independent political student is struck with the fact that three of them were favored by Republicans and Democrats alike. It was a non-partisan vote that cut off the war revenues, that passed the canal bill, and that enacted the immigration law. The Philippine act alone of all the important new legislation was a party measure. When men settle down to do serious public work, few things are, or seem, of such little consequence as sheer political partisanship. That generally is saved for use upon the galleries when measures of little importance are under consideration, and for use in the political campaign.

The truth is, discussion on the stump and in the party newspapers is never as frankly conducted as the work of carrying on the Government is done. The stump is a stage, candidates are actors, and voters are the audience. Everybody knows that much of the performance is merely perfunctory. But the play generally proceeds on the level of the least intelligent and most prejudiced part of the public.

A SUMMER WITH THE TRUSTS

THE trusts are up for discussion this summer. So they have been indeed for many a summer and many a winter as well, and many years will pass before we are done with discussing them. But the President and Congress and the lack of sharply-drawn issues between the parties are influences that bring this ever-new old subject squarely before us again.

On a book-rack in a pleasure craft that was fitted out in New York for a cruise the other day were eight recently published books on trusts; a Western member of Congress discovered as soon as he went home from Washington that his political friends wished first to know "what part trusts will play in the campaign;" and a Southern clergyman is spending his vacation studying the practical workings of trusts as they affect labor unions in certain industries in New England.

Two intelligible plans of attack on the dangers and evil tendencies of great aggrega-

tions of wealth and industrial power have been clearly formulated out of the interminable talk on the subject.

One is so to change the tariff as to take away its benefits from every organization made in restraint of trade. This will never be done until the tariff is reduced uniformly; for, apart from the difficulty of deciding which trusts are "in restraint of trade," the Great Interests so have command of Congress that none will yield any particular advantage till all are made to yield. The only practical tariff-reform will be a uniform and general reform.

The other and the best plan to safeguard the public against them that either economist or administrator has laid down is the safeguard of enforced publicity. Municipal and State authorities may require publicity in various ways and in various degrees, and the National Government may require it concerning all corporations that do an interstate business. An earnest public demand for such publicity made enforceable by law would discourage, if it did not prevent, the improper increase of securities, the unfair treatment of minority shareholders, the manipulation of values, oppressive combinations to uphold too-high prices, and the wanton use of organized power against the public welfare. Or, if such publicity did not clear the horizon of doubt, it might show the way to a more definite remedy of some other kind. It is safe to suspect any politician of muddled thinking or of a worse fault if in his declamation he pretends to set forth a more radical method of dealing with them.

This is in the direction of President Roosevelt's very earnest thought, and it is in this direction that definite results may be hoped for. The President has the very great advantage that, by reason of his training simply as a public servant, his life-long freedom from private activities and his independence of thought, he belongs neither to the friends nor to the enemies of the trusts. He is properly not classed in the public mind as a partisan to the controversy; and he is very much in earnest.

THE PERSONAL BASIS OF TRUSTS

THERE is another side of the study of trusts. For, while many men are deeply concerned about their effect on the public welfare, other men are becoming concerned about the welfare of their trusts. A considerable body of opinion is gathering that we have seen the culmination of their formation, and that a day of reckoning is near for such as are not built on the foundation of sound values and good management, and a day of competition for most of the rest. The New York *Commercial* lately published a calculation that very much more capital has recently been invested in companies that are rivals to "trusts" than in new trusts. If this be true, the meaning of it is that in many kinds of industries consolidation can go so far and no further. There is a point beyond which the economies of centralized management are off-set by new kinds of expenses or by new difficulties.

This tendency toward the organization of smaller companies that admit of something more nearly akin to personal management than the great aggregations, falls in with common sense and good economics. Such a tendency is bound to assert itself sometime; and if it be suggestively visible in the business world now, it will probably come in time to save us from the sudden toppling over of many ambitious great aggregations that lack good management. For the whole matter comes back at last to management—comes back to personalities. Some industries—preeminently railroads and steamship lines—more easily lend themselves to unified control than others. But every undertaking, large or small, implies personal management; and every great trust that has been successfully conducted rests upon the good judgment and skilful work of a man or of a group of men. The bigger the aggregation, as a rule, the greater the need of a strong man. Conversely, wherever there is a strong man in any industry, whether he be in a trust or out of it, successful activity is likely to show itself.

The success or the permanence of most of the recent great aggregations is yet to be determined. It will be interesting to see what will happen when the strong men that organized them and that successfully conduct them are dead.

AN INDUSTRIAL TEST OF PROSPERITY

THE dividends paid in New York and in other money centres on July 1 were at least as large as those paid last year,

the sum known and distributed through the regularly reported channels in New York alone being at least 125 millions of dollars. In other words corporation-prosperity continues. The railroads paid a larger sum in dividends than last year, the industrial companies somewhat less. The most noteworthy reduction was of copper dividends, and the most noteworthy increase of earnings was of the United States Steel Corporation. The earnings of this great aggregation, like the earnings of the Standard Oil Company, put the wealth of old fables to shame. The richest men of all preceding times would have regarded such earnings by any single company or group of companies under unified control as simply incredible.

The railroad situation is especially satisfactory in comparison with the situation at any recent period. According to a compilation made by the *Railway Age*, of Chicago, only twenty-two railroads, which are short for they all aggregate only 1,310 miles, are now in receivers' hands. The only road of any considerable importance in this list is the Terre Haute and Indianapolis road (432 miles) which is not insolvent but is in a receiver's hands because of a disagreement among the owners. In other words, the roads now insolvent are inconsiderable; for in 1893 alone 29,340 miles of roads became insolvent.

The process of reorganization and consolidation and the prosperity of the country have put an end to the disastrous and disgraceful era of inflation and wrecking. There are yet inflations of value, but the reckless period of railroad management seems past. It is feared that now the street railways will have to go through a somewhat similar process. At least they and not the steam roads are now the financially dangerous kinds of transportation properties.

HOW PEACE ADDS TO THE WORLD'S WEALTH

ONE grateful result of the Boer War that will soon be felt is the revival of industry, especially of gold and diamond mining in South-Africa. Mr. John Hays Hammond, the eminent mining authority, has pointed out that the annual production of gold in the Witwatersrand is likely to be about a billion dollars; and he thinks that, after work shall have been fully resumed, the annual product will for a good many years be steadily increased—say for a quarter of a century or more. Its product, as soon as all the mines are again opened, will again be about one-fourth of the world's annual yield of gold. Nearly 98 per cent. of the diamonds of commerce come from the Kimberley mines. The production of so much wealth, together with the cessation of the great positive waste that the war caused, will make a very great difference in the general economic condition of the world. Happily we have long outgrown that crude stage of economic thought that regarded wars as contributions to prosperity.

In a smaller way the winning of peace in the Philippines will add to wealth and to commerce. Productive industry will gradually take the place of destruction and stagnation; and our war-waste, too, will cease. There has at times been much premature and foolish discussion of the commercial value of the archipelago to the United States. Commercial values had little or nothing to do with shaping our policy; but in the decades to come the world's commerce and wealth will be very considerably increased by our rule there. In fact our own commerce with the former Spanish islands has already grown astonishingly, in spite of our foolish policy with Cuba. Leaving Cuba out, our shipments to non-contiguous territory of the United States were about ten millions in 1897; in 1900–01 they were thirty millions; and in 1901–2 they were about thirty-five millions. The same non-contiguous territory sends us now fifty million dollars' worth of products. Consider Porto Rico alone: in 1897 we imported from the island a little more than two million dollars' worth of products; in the fiscal year 1901–02, we imported seven millions. Our control of Alaska, Hawaii, Porto Rico, and the Philippines enriches both them and us and will enrich both to a much greater extent hereafter.

THE NON-CLERICAL NEW PRESIDENT OF PRINCETON

THE American college keeps moving away from ecclesiastical control. Yale ended its long succession of clerical presidents when it elected Dr. Hadley, and Princeton has done likewise in electing Dr. Woodrow Wilson. This tendency dignifies education and broadens it; for no man can be a wholly single-minded president of a great institution if denominational or ecclesiastical

obligations rest on him, nor can he quite win the fullest loyalty of those who have other denominational preferences. Any man who can make an accurate measure of the intellectual progress of the people knows that both Yale and Princeton suffered in their development, Princeton in particular, by clinging too long to an outworn system.

And the change was made at Princeton by a masterly and interesting stroke of good college politics. Neither scholarship pure and simple nor genius for teaching has always been the sole reason for advancement in that academic community—if indeed it is in any. Enough time and thought and energy have been wasted on ecclesiastical and academic politics at more than one important educational institution these twenty-five years to have built up several great scholarly reputations. But the activity of academic politicians at Princeton was cut short more neatly than it was ever before cut short in all the annals of college life. At one session of the Board, without previous announcement, Dr. Patten resigned the presidency and nominated Dr. Wilson to succeed him; and the election was made before the public knew that there had been a vacancy.

The result was the best that could have been attained even by years of discussion. President Wilson is a Princeton man; he has been an eminently successful member of the faculty; he is hardly turned forty-five; he has a winning and strong personality; he knows men; and he knows American institutions and he believes in them. He stands for the best tendencies in American education.

THE POSITION OF THE ENGLISH KING AS REVEALED BY HIS ILLNESS

WHAT would have been the greatest pageant of recent times was postponed and prevented by the dangerous illness of King Edward on the very eve of the gorgeous and elaborate coronation that had been planned and to which all nations sent representatives. When he is crowned now the spectacular glory of the occasion will be pale in comparison with what it would have been in June.

But his illness and the anxiety through which the Empire passed drew his people nearer to him and nearer to the throne than the most elaborate coronation could have drawn them. The royal family of England perhaps owes more to the accidents that the preceding monarch was a woman and a good woman and that King Edward was dangerously ill at so critical a time than it owes to any positive advantages that royalty may now have.

Through his illness the King has borne himself with such consideration that he is held in higher esteem than he ever was before. Very sincere were the expressions of sympathy from all the world; and the whole bearing of the English people was such as to show not only that they esteem King Edward and measure him by his best qualities, but that the throne itself is yet regarded by them as one of the pillars of civilization. The truth, perhaps, is this—that no individual so regards it, but the collective English people still hold to a firm conviction of its necessity. The force of political and social habit is apparently as strong as the fiction of divine right once was. As a recent biographer of King Edward expressed it with loyal vagueness: "It is the Idea, and not the statute-book, which governs us, and the Idea is exactly what we ourselves make it. It is the Idea, in the long run, which holds together four hundred millions of the human race."

THE OUTLOOK IN JOURNALISM

JOURNALISM now offers by far better opportunities for men of good equipment and public spirit than it ever before offered. In earlier days, before rapid printing machinery, cheap paper, a cheap telegraph service and cheap and rapid distribution, there was a certain apparent dignity about the editorial life that it lost during the first years of the growth of the "yellow" journals. But the old dignity was more apparent than real. Anybody who takes the trouble to read the files of many newspapers of a generation or two ago will soon become very tired of the undignified wrangles that filled their editorial pages. He will discover that most journals and most journalists were simply the tools of men in public life. As an independent profession it offered careers to few. The Civil War gave it a chance greatly to develop; and, for a time thereafter, it attracted an increasing number of strong men. But even then they were a small group, and their readers were a small part of the people.

Then gradually came the period of mechanical development, when newspaper-publishing became a profitable industry, and this period culminated not many years ago in the rise of the "yellow" journal. The "yellow" journal was so conspicuous a product of these new mechanical conditions that it had a tendency to vulgarize the whole profession. Men were called into its service for other qualities than accurate judgment and good style. But from the very nature of things (since our democratic society is essentially wholesome) the permanent service that the press can render to the public could not long be affected by the extremes of "yellow" journalism. The better part of periodical literature was all the while becoming better than it had ever been. This is true not only of the daily newspapers that kept their character and added to their energy, but it is especially true of the monthly magazines, which also are journalism.

In fact the sensational papers, along with their noisy degradation of the profession into a vulgar commercial trade, taught several useful lessons. They enormously widened the area of newspaper influence. They discovered hitherto forgotten millions of readers. They proved the possibility of profitable one-cent papers. They brought about the organization of profitable advertising. While they were making the inactive moralists mourn, they were teaching men who were willing to profit by their lessons the way to make journalism both more useful and more profitable than it had ever been. They were opening new fields of influence and of income.

Now, as a profession that can do an honorable and important service to society becomes also profitable, it becomes increasingly attractive to strong men. The period of the Great Editor—the man who carried on a party debate every morning and gave his readers a sort of continuous gladiatorial performance—is past. The day of the Sensational Journalist is passing—the man who boasts of his paper's circulation and of his charities—because other sorts of self-conscious millionaires also have risen to play this sorry game; and the newspaper braggart is ceasing to attract attention. Meanwhile the conscientious, well-equipped army of high-minded men who practise the profession is increasing every year.

The present prosperity of the New York *Times* as a one-cent newspaper whose columns are clean and reflect the cheerful spirit of contemporaneous activity, is one among many demonstrations that honorable and high-minded daily journalism is appreciated by the public. Similar evidence was given by the recent sale at auction of the Philadelphia *Record*, another clean one-cent newspaper, for about $3,000,000—a fair valuation. In almost every city in the land there is one such newspaper if not more than one.

The truth is, journalism is just now becoming for the first time distinctly an independent and attractive profession. It yet needs a better *esprit de corps*, a sense of professional dignity, and relief from the quacks and the loud adventurers of the craft. There is need, too, of still higher pay to those that write well, and of more stable conditions of employment. But these conditions are following the more stable prosperity that the business is taking on.

THE HARD ROLE OF THE PUBLIC HERO

LORD KITCHENER seems to fall short of playing the hero in the popular eye, though he seems, perhaps for that very reason, to hold the hearts of his countrymen. In the light of modern newspapers and all the other machinery of intimate publicity, to play the popular hero for any length of time is the most difficult rôle that even a great man may try. It would be interesting to see the result if Napoleon could be subjected to the twentieth century conditions of hero-life.

Lord Roberts is already forgotten by the people; General von Waldersee, who strutted half across the world and back again as the Commander-in-Chief of the Allied Forces in China, is as dead to the world as Hector or Li Hung Chang; Admiral Dewey holds the grateful esteem of his countrymen, but he is no longer a figure that men and women flock to see when he drives out; Rear-Admiral Schley has ended his victorious journeys to State capitals. Gold lace and decorations glitter but a brief space in this over-busy world, just as oratorical triumphs now butter few political or ecclesiastical parsnips. General Grant was perhaps the best all-round long-working public hero of recent times, and Lord Kitchener seems to have something of his temperament of indifference to the spectacular.

ON THE BEACH AT ASBURY PARK, NEW JERSEY

F. L. Wilcox

THE PEOPLE AT PLAY

THE GROWTH OF THE SUMMER VACATION AS A SOCIAL HABIT AND AS A BUSINESS INVESTMENT—A CONTINENT OF SUMMER HOMES AND RESORTS—THE MOUNTAINS, THE SEASHORE, THE LAKES, THE FORESTS — OUTDOOR LIFE FOR THE MILLIONS

(Among those who have contributed to this section of the magazine are Walter H. Page, Julian Ralph, Lindsay Denison, Charles F. Holder, E. T. W. Chambers, Arthur Goodrich, M. G. Cunniff, and Ray Stevens.)

THE American masses have discovered summer, and the discovery is working a great industrial and social change. Take any town that you will, and, if your memory goes back twenty or even t years, you will recall how few persons wen away during the hot months. The rich in the Eastern States used to go to Saratoga or to Long Branch; but the whole number of those that took summer outings was much fewer than the number that now goes to Europe.

For now taking a vacation is a regular part of the year's routine. We have gone at it as a business and "developed" it as we have gone at and developed everything else. It is organized, classified, "conducted," brought within the reach of everybody. Cheap travel and a prosperous era are shown in no way more striking than by the universality of the summer vacation.

A MOUNTAIN GOLF COURSE

NANTASKET BEACH, BOSTON

N. L. Stebbins

Simply as a business, Vacation has come to be one of the Great Industries. The railroads that run to mountains and to shore multiply their travel by two or three or ten. The trolley, especially the rural trolley, does an ever-increasing service. Within a dozen years real-estate at seaside places that are accessible to the large cities has increased in value at the rapidity of urban property. First the bicycle and now the automobile are causing good roads to be built wherever summer visitors go in great numbers. Horticulture and

THE BAY AT BAR HARBOR

W. A. Boger

CATHEDRAL DRIVE, LAKEWOOD

W. A. Boger

EVENING AT LAKEWOOD, NEW JERSEY

floriculture have been developed as the most daring prophet would not have predicted twenty years ago. Inquiries to ascertain the rapidity of the growth of summer travel on

W. A. Boger

"THE WIZARD OF THE BRONX," BRONX PARK, NEW YORK

NEW YORK AT PLAY, CONEY ISLAND

A. Hedley

several great railroads that run from cities to the sea or to the mountains brought a mere bewilderment of figures. The curious may amuse themselves at any railway station in any summer country by inquiring about the increase of travel—and be amazed.

As a great social force, too, the summer movement of population is of the greatest importance. The well-to-do have two places of residence, two environments, two sets of neighbors—one might say an outlook on life from two different angles—two moods, two views of things, a double life that adds both to their physical and to their intellectual resources. We were alarmed a short generation ago lest we should all become nervous wrecks in the great centres of desperate endeavor. But the summer outing came to the rescue. It has added as greatly to the variety of life as to health. It brings hundreds of thousands close to nature who would otherwise regard urban residence as normal.

And it changes rural life. The country-folk become more prosperous, for the vacation is an important means of distributing wealth. They become also interested in life of another sort from their own.

If one look at the United States from one ocean to the other in July and August, he will see millions of people at play—people of every social and financial gradation; for few are so poor as not to take at least a short vacation. It is a small matter that many thousands spend money absurdly in cramped hotels or (to go to the other extreme) in unsanitary farm-houses. The important fact is that they change for a time their routine of life. The cramped hotel and the unsanitary farm-house will pass: the habit will remain.

To give any adequate idea of the extent of the summer movement of the people, of the vast business that it implies, of the physical and social benefits it confers, or of the yet unsuspected wide range of outdoor pleasure in almost every part of the United States—even a bird's-eye view of these would fill a dozen or perhaps a hundred magazines. But to emphasize, to celebrate, to hint at the Summer Vacation, in this number of THE WORLD'S WORK there are grouped typical experiences, descriptions of representative scenes and regions; and the scenes and experiences have been selected almost at random. Some of the most attractive regions of the country have not even been mentioned in the following pages. They could not be, for a mere directory of pleasant summer places would fill many magazines.

Nor has any advice been thrust at the reader, for the simple reason that the man who now needs to be told how to spend his time of recreation is too stupid a man to read this magazine. THE WORLD'S WORK contents itself simply with celebrating the Vacation—by specimen pictures and experiences. Wherever you go and however much freshness of spirit you get from water or woodland, remember that there are a thousand other places as pleasant—a thousand other experiences as exhilarating, and tens of thousands of other men and women having as good a time as you are; for the rising generation of Americans have found the secret of gaining rest and recuperation from Nature as surely as they have found the secret of doing strenuous labor. And no other country offers such a variety of methods of escape from the serious problems of life as ours offers.

THE CITY AS A SUMMER RESORT

WHEN we think of the summer recreation of the poor in the great cities the first thought is of cheap excursions by water or on land, to bathing places and to picnic grounds. Every great city has such resorts within the reach of a ten-cent or even of a five-cent fare; and the general growth of the habit of recreation is shown as well by the prodigious growth of these resorts as by the development of watering-places for the rich. If you will take the trouble to inquire you will find that such places near any American city are now visited by twice, or thrice, or four or ten times as many persons as visited them a few years ago. The general observance of Satur-

day afternoon as a half-holiday and the growing habit of using Sunday as a day of recreation have made a change in the habits and in the character of the mass of the population.

The truth is, with parks enough, with trolley-cars, and in cities that lie on the coast or on river banks with boats—most American cities are coming to have fresh-air resorts such as only the rich could afford a few generations ago.

There was a definite attempt made several years ago to increase the comfort and the joy of dwellers in New York who could not afford even the humble extravagance of a ten-cent trip. A recreation pier was built,—an experiment that had been tried elsewhere. There are about twenty miles of piers along New York's water front. None of them are lighted at night. But the possibility of getting a breath of cool air and freedom from the oppression of surrounding walls drove thousands out upon them. They streamed out from the water-front streets and lined the string-pieces along the edges of the wharves and lay in rows in the wagon ways. They still do so on many piers.

Every summer there are one or more steamboats fitted up as floating vaudeville theatres and concert halls. They leave about sundown and without any definite itinerary move leisurely between Sandy Hook and the Palisades of the Hudson, returning their passengers to the city before midnight. But the nearest approach to such luxury which is allowed the poorer summer-dweller in the city is the trip across the bay or the sound. On the long-trip ferry boats there is almost always a troupe of itinerant musicians willing to hazard an expression of their skill on the chance that a few pennies will be forthcoming from the other passengers.

ANOTHER PHASE OF CITY RECREATION

Who are the people that promenade the walks and take their ease in rocking chairs on the porches, and patronize on the aristocratic side of the fence at Coney Island? Many of them could go to Atlantic city or to the Adirondacks. They are those who lack time, or think they lack time, to go far from the city. There are also many who have come into the city from the country for a change. There are more such visitors in summer in the great cities than anyone realizes except the hotel keepers. For several years the hotels of New York have been as much crowded in the late summer, at the height of the city "vacation season," as at any other time of the year. There are thousands of well-to-do people of smaller cities and towns for whom the city has a definite charm and attractiveness at the very time when most of those who dwell in it, and can afford to leave it, go away.

There is always something diverting in the city in summer. It is possible to find a new experience in an altogether new direction every day of week after week. And surely that is recreation.

AN AMERICAN FOREST PRESERVE

NOT many years ago I made my first cast for square-tail trout upon a Maine lake from which an unbroken forest stretched away in every direction; the smoke of a camp-fire, drifting above the balsam tops, was the only mark of man. Last August I revisited the spot. A huge hotel stood there, on whose wide verandas elderly men were taking a constitutional promenade, and little groups of stolid matron gossiped over their embroidery; gaily-dressed girls and well-groomed young men played golf on smooth green lawns.; little launches puffed over the lake; a heavy-breathing locomotive trailing crowded Pullmans drew into the little station; and to the old spring that had bubbled under the birches ran a graveled path; a sign read—"This Way to the Mineral Springs."

To many men the "Maine Woods" suggests uninhabited wilderness, and Maine still has, in fact, some 22,000 acres of wild land far from the summer boarder. But even here the old freedom has gone. I knew a party of campers who went up into Canada and then down into the upper edge of the Maine wilderness that stretches unbroken clear to Moosehead Lake, to find that the only place they could pitch their tent was on a ten-foot strip of railroad land close to the track. But even here they were so closely

watched by the men who controlled the camping right that a single infraction of the game laws caused their arrest. The lumbermen who own the land will not sell small lots. If you buy you must take a township or two. The State law, as a protection from forest fires, compels all campers on wild land to hire a licensed guide under penalty of fine or imprisonment.

These restrictions are not felt by most men who go to Maine. These men hire a guide as a matter of course, for the guides know where the best fishing and hunting are. Many of these very guides, also, have leased the best fishing and hunting grounds. Here they build permanent camps and these camps have proved so attractive that they are spreading all over Maine. The formerly almost inaccessible heart of the wilderness is open to sportsmen who like to camp, without the usual discomforts and hardships.

"Why," said a lazy lawyer just returning from his first trip to Maine, "I went into that wilderness a hundred miles and had a glorious time without lifting a finger. A Pullman dropped me down at Moosehead, a steamer carried me forty miles further, a buckboard gave me another lift, and then a guide paddled me the rest of the way in a canoe. I slept under a good roof on a hair mattress. Everything was done for me. When I fished the guide would take the trout off the hook, fix the bait, and all I had to do was drop in and pull out. A man can take a vacation in the woods as easily as he can at Lenox. I am going to bring my wife with me next season."

But true sportsmen come as well, not only for its gamy trout and wary deer, but for solitude and for primitive simplicity in living. Means of enjoyment are endless. Exploring is full of surprising delights—creeping in a canoe along the shores of the forest-edged lake for miles and every now and then stealing into little bays where the deer feed on swamp grasses and water lilies and the solemn great grey herons stand like sentinels in the shallow water. "Trails," merely lines of blazed trees dangerously far apart, lead through the woods, fragrant with flowers, where birds rare to the suburban bird-lover are as common as robins, to new lakes or streams. Even rainy days have their charm as the camper sits by the blazing fire and listens to tales of wilderness adventures. Here square-tailed trout grow to the weight of ten and even twelve pounds, and they can be taken by the ideal method—the fly and the nine-ounce rod. In the fall still hunting for deer and moose make the clear cool days glide by swiftly.

The man who likes the zest of real "roughing"—who likes a bed of boughs, a meal cooked over an open fire, and the wilderness all to himself, can have that too in Maine. Day after day he may glide in a canoe through the unbroken forest, over rivers, now still and smooth and now roaring down white rapids; across picturesque lakes and ponds. At night the weird cry of a loon will cause delightful shivers of loneliness, as the camper lies on the balsam boughs, watching the red tongues of the camp-fire licking the dark.

In the Maine woods there are but two dangers. One is the reckless hunters who shoot at everything that moves and bag men as well as deer. Scarlet is becoming the popular color for hunting coats in Maine. And the Maine woods were made to get lost in.

Once I strolled away from camp for birch bark. Thoughtlessly I wandered from tree to tree deeper into the shady tangle. Suddenly I realized that it was getting late and gathering up the roll of bark, I started briskly for camp. I tramped a mile or two in the increasing darkness and suddenly suspicion began to grow that something was wrong. The lake was not to be seen. No compass! No sun for guide! Only the grey tree trunks stretching away in ghostly hues. As I stood there in the growing dusk all sense of direction faded and over the forest came a mysterious change. It grew strangely unfamiliar with its black balsams and cedars and here and there the white bole of a birch glimmering palely. An almost mad desire came over me to escape from their silent inhospitality. I threw away the heavy roll of bark and struck out blindly. On and on I went, tumbling over deadfalls in the dark, scratching face and hands and tearing my clothes in the brush. I blundered through a swamp where I sank knee-deep in mud and water. At last I came to higher ground where walking was better, though it was now very dark. Just as hope came that this might be the little ridge that lined the shore of the lake, I came upon a strange, long, white thing on the ground. I touched it with my foot. It was the bark I had thrown away. I had

traveled in a circle. The words of "Billy," the guide, came to my mind: "When you git lost, don't go rampin' and tearin' through the woods. Just squat right down." I squatted. When at last the cold, wet dawn came, the clouded sky gave no indication of where the east was. I continued to "squat." Suddenly above the noise of the rain I heard a far-off muffled explosion. It sounded like a rifle. Again it came and I knew it was the guide searching for me. I had wandered about four miles from camp; I had passed the most miserable of nights; but I had learned a great truth. A compass is more valuable in the Maine woods than a rifle or a fishing reel.

A TRAMP IN THE WHITE MOUNTAINS

WE had only just arrived, but at the noise of voices on the porch we sprang from the hasty lunch they had prepared. Outside in the glare of a single big lantern, half a dozen men in neatly fitting corduroys and hip-boots were grouped about a portly, clerical-looking gentleman, similarly attired. All were talking at once of the string of undersized trout the Doctor, as they called him, held high. A dozen stories of the day's luck and individual feats were hurled in confused succession at the admiring wives and daughters who faced them, until the Doctor's wife, complacent and patronizing, addressed herself to a slouchy figure standing at the edge of the group:

"It was a good day's fishing, Ezekiel, was it not?"

The tanned face opposite her creased into wrinkles with a smile that was half good-humored, half pitying.

"Never saw better *weather*," he said. "Better let me clean them fish for ye, Doctor. I somehow need the exercise."

During the next two or three days we came to know Zeke well. He was a hanger-on at the little hostelry, doing odd jobs, guiding parties of trampers or fishermen. In the winter he cut wood and helped to slip the great logs down improvised toboggan slides over by Imp Mountain. He was what the Professor from Boston called "a character," and the guests accepted his contempt for city ignorance and his quaint sayings with equal wonder and respect. He was one of the sights they had come to see. We began to learn his dimensions during a tramp over the Northern Peaks. He heard we were going and the night before he sat on the bank while we swam in a deep, cool mountain pool.

"Goin' up George to-morra?" he said reflectively, puffing away at his cob pipe. "'Scuse me for bein' familiar, but he's an old friend o' mine. Want me along? The Doctor's clean tired me out."

When breakfast was over in the morning, the guests began their usual recreation. "The Doctor" and a young city physician, who was more successful in New Hampshire than in Boston, started a game of croquet, and the physician's wife with two or three other young people played tennis. The Professor sat at one end of the veranda alone and the Professor's wife sat at the other end, alone, both staring vacantly into space. A number of Boston girls were gathered about a long-haired gentleman who, during the winter, dispensed poetry to women's clubs and in the magazines, while half a dozen matrons crocheted and knitted and sewed, remarking incessantly, "How cool it was" on that hot sultry morning. But for us the mountains loomed up gray and hazy against the clear blue beyond, an undiscovered country to be explored, a misty mystery to be solved, calm, enduring, illimitable in their promise, mighty with century-long achievement.

The first impression the White Mountains make is that of deep peace. All the passionate hectic whirl of the world outside is suddenly "calmed back again." A vivid sense of awe and restfulness is followed swiftly by new and deeper ambition—vigorous, disciplined, restrained. Their broad brows uplifted to the sun seem those of ancient sages who would say: "To live is to endure. I have endured, therefore I live." Here the ruggedness of the Rockies gives way to placid, well-groomed, sloping sides. They seemed to me

that morning more than ever the cultured mountains of America. I said as much.

"Depends on what ye mean by that word," said Ezekiel. "They're kindly souls, them mountains. I never knowed a man thet edication gev a soul to. I'd call the Professor cultured, but them mountains are Christian."

Down in Plympton Pass in the midst of the woods was a tumbled-down bridge covering a twinkling brook.

"Thet bridge's like the Doctor: just loafs 'round spatterin' his planks in somebody's else's pond; and there's old Reddy," pointing to a wild-rose bush by the roadside. "Thet's the great grandson o' old Reddy I used to know. Family settled down here and ain't never moved. Nods to me jest as his dad did and *his* dad and *his*."

On every side was a tangled confusion of vine and bushes reaching up thickly set, sturdy tree trunks, the forest primeval thro' which man had passed only by the single path we trod. From the little ridges we seemed to be forever climbing burst upon us from time to time the long undulating line of hills, a cordon of battlements closing us in from the warring world outside.

The sun was shining brightly as we entered the almost unbroken forest at the base of Tuckerman's Ravine. Soon we were in the heart of the woods, plunging over fallen trees or slipping down rocks half wet by a ragged stream that ran wild down the mountain, now gathering itself for a leap down from rock to rock, now spreading into a wide path between the straight tree-trunks, mingling its echoes with the humming of the trees above. As we stopped for breath and for a bite to eat, on a moss-covered seat by the stream's side, Zeke left us. We were nearly done when he returned. His face was radiant.

"Saw old Ceph," he said as he munched at the leavings of the luncheon and emptied his pouch of some berries he had picked. "Shook hands with him and said 'Howdy.' Folks as says trees like him ain't human don't know any more about it 'an that fancy pill-man does about curin' folks. Ceph he sat right down wi' me an' told me about young Ceph dyin' in the winter, and sighed and took on terrible. But he don't quit, old Ceph, he keeps right to his work."

"What is his work, Zeke?"

"Growin', jest growin," he said meditatively. "Old Ceph's a derned sight nearer heaven 'an you an' I be."

Up and up we went to the hanging glacier and to a shelf of rocky land where a deep, black "bottomless" pool shuddered in the midst of straight sentry trees. The glacier seemingly was seared with age and worn thin by the dropping of one of the innumerable streams that slip down in riotous confusion from above. From the lone lake it was only a few moments' scrambling climb through bushes sinuously trailing the ground, to which the storms had beaten them, up to the edge of vegetation. Above, within and beyond the cloud, was the rugged, storm-seamed brow of the noble hill; below, thousands of feet below, was a vague impressionist panorama of green glinting in the quiet August sun. For a moment, at the centre of a grim, bleak silence, we looked back at the blur below us and then, suddenly, the dank cloud surrounded us and warned us into line for the struggle ahead. And struggle it was, for in and beyond the cloud was snow and sleet hurled across our too uncertain path in wicked volleys, in our faces, at our backs, enfilading us. The way became so obscured that in relays each in turn groped upward for the next little pile of stones or marked rock which pointed the course. The thermometer had suddenly dropped forty degrees. At last every large rock served as a shelter for a few moments' rest. Yet somewhere in the dense fog of cloud and whirling snow was the summit, the goal.

"Never saw George so worked up," muttered Zeke again and again. "Somethin's riled him hard."

But it was an hour before we saw the first shadow of the building lying farthest out from the summit leaning ghost-like toward us. With steps uncertain in the rushing wind we crossed the area, climbed the icy stairs, reached the haven.

"Feel's if ye'd been to a christenin', don't ye; sort o' beat out but glad ye done it," remarked Zeke as we sank into arm chairs about a red-hot stove.

The next morning the clouds seemed as dense as ever tho' the wind was gone. We were on the porch when the transformation came. Suddenly, where the cloud had smothered us in, the whole world, bright in

the sun, stretched away in all directions—its rivers, lakes, hills, oceans, forests blended into one banded color-scheme of blues and greens. We were struck rigid, tense to meet the immense beauty of it until Zeke half whispered:

"Alluz feel like saying the Doxology. Alluz—— ——— Doxology."

Then the thrill broke into an ecstacy of excitement. It was nearly an hour before we could leave the momently discovered wonders for our tramp over the Northern peaks. But over them we went in the bright summer weather, over Clay, over Jefferson, over the Adamses, with the half-civilized yet never wild New England country falling away from us in a kaleidoscope of color on all sides, drinking in the clear mountain air at every step, and catching new hints of the quiet romance of it all from Zeke's quaint talk.

A quarter of a mile from the rocky summit of Mount Madison was a little Appalachian hut that was to shelter us for the night. We had scarcely taken possession when Zeke disappeared. When we had a fire nicely going, we started for the summit and the sunset. And there we found the old man sitting on a big shelving rock with a little lonesome bird perched on his knee. At our coming the bird whirled away into the air. Zeke looked after it mournfully.

"Thet bird's had a heap of trouble," he said. "Thet's why she's up here all alone er else," more cheerfully, "she come up to see the sun set."

That was reason enough. Floating iridescent islands of faded verdure swam in a yellow sea, sparkling at its centre and dulling away till it met itself in a dingy, shadowy pool in the east. With each breath it changed: now brightening with glinting white caps of light, now darkening until only the welter of its waves was visible. Below, silent, reflective, immobile stood the hills. Then slowly the islands sank, the night drank in the yellow flood, while still out from the shadows the hills lifted themselves unchanged.

The next morning Washington stood out against a throbbing curtain of crimson. Off to the west the valley was hid by billows of pure white cloud tinged a faint rose color at their edges. Somewhere down the eastern slope, lost in its green, a bird chanted a quaint new call.

"Thet's Nellie," said Zeke eagerly. "No," he said in answer to our question, "don't know what the Professor calls her. But she's Nellie. She's the only one up here 'at recognizes me."

Then he called to her so perfectly that we had to watch him to be sure it was he. And again came the clear mellow notes from below, weird, insistent.

Soon we were started down the "Valley Way," slipping on pine needles, jumping from trunks to gnarled roots, through cities upon cities of trees—the forest run riot—past loudly boasting, high leaping rills and broader more placid streams, over tilting, single-plank bridges, down, down, always down, until after four hours, we emerged at the clearing around the old Ravine House. After breakfast we tramped to Carter's Notch.

"You city folks is funny," remarked Zeke, as we toiled along. "Ye work fit to split all winter, then ye come up hereabouts an' work fit to split all summer and yit," he added thoughtfully, "ye don't somehow split."

Later, as we were threading through the swampy thicket of the Notch, he remarked:

"Do ye heap o' good if ye'd jest once, *jest once* set down quiet-like an' chew grass fer'n hour. Rose, thet's my cow—does thet kind o' exercise all day, and Rose alluz does her duty and she ain't onhappy like the Professor."

In the little three-sided shelter by the dark-watered lake the hills shut in at the very centre of the Notch, we munched raisins while Zeke brewed some tea over a fire which he wonderfully made. Soon we were in the swamps again, guided by blazed trees and by Zeke who knew every step of the signless path. Finally we were over the long log bridge and out in the road by Prospect Hill.

I should like to hear what Zeke would say to Newport with its vast modern display of wealth, or after a promenade on the broad veranda of the Grand Union at Saratoga. He would like the Southern Berkshires, for it is the White Mountain country in miniature. But he is happiest behind the barricade of White hills. He does not need to leave them to see the world. The world comes to him every summer, and entertains him and pays him for it. And the White hills deal out health and clean vigor to all, but most to him who is closest to them and least to him who uses them only as a means to an end.

ONE STATE AND THE "SUMMER PEOPLE INDUSTRY"

A FEW years ago the Commissioner of Labor of the State of New Hampshire, L. H. Carroll, made a discovery which seemed of the utmost importance to him. The statistics of his bureau showed that there were a great many more people employed in the State in the summer than in winter. But his discovery was that the summer increase in the number of the employed was due in large part to the floating summer population, to the people who came into the State from cities outside of the State to rest themselves and to pay for the privilege. This led Mr. Carroll to expend a good deal of money and time in gathering exact statistics about the actual value to the State of what he chose to call, quaintly enough, "the summer people industry."

The mere reprinting here of about half of the report of the Bureau of Labor for 1900 will show what a blow it dealt to some of these traditions with regard to the amount of consideration—economic consideration—to be given to the summer sojourners:

Capital invested in summer property	$10,442,352.00
Number of summer guests at farmhouses, boarding houses and hotels	153,928
Number of persons occupying cottages for the summer only	20,352
Total summer recreation population	174,280
Persons employed by summer people and for their entertainment	12,354
Wages paid to persons thus employed	$539,901.00
Cash received from summer people	$4,947,935.00
Estimate of cash received for railroad fares	600,000.00
Cash received for stage fares	63,275.50
Cash received for lake steamer fares	60,369.21
Invested in cottages and hotels and other buildings for summer use	937,785.00
Total volume of summer business and investment for 1899	$6,609,364.71

The educational effect of this document on the State was direct. It was at once apparent that the "summer people industry" was one of the State's most profitable assets. The report itself did not waste the opportunity to urge coöperation upon the citizens. A few quotations from it are worth while as showing its purport:

"The summer outing business of New Hampshire is of the greatest importance as related to the welfare of our agricultural towns and the farmers of the State. Its encouragement means much to our farming people, for it is a business that can be engaged in without in the least interfering with the work of the farm. It can be made supplemental therewith. The two hundred and four towns and cities in which the summer people congregate for a longer or shorter stay are benefited beyond the mere item of dollars and cents they leave. They bring a spirit of thrift and enterprise that is by no means lost on the people of the town. The social cheer and the interchange of thought and ideas are needed in the farm home, and they lighten the busy round of work. The business is only in its infancy as compared with what is possible if the opportunities are improved. The quiet hill town, removed from the noise and bustle of the busy mart and office worry, is a welcome change for rest and recreation during the vacation period.

"We desire, if possible, to impress the fact upon the people of the State, that, while this summer business is in many respects of equal advantage to city and town, it is of paramount importance to the rural section, and the thrift and prosperity of the farmers of the State are closely allied to the enlargement and growth of this feature of business. The interest and opportunity should, however, be mutually considered.

"Incidental with the business of summer boarders and the opportunities it affords all along the upward trend of farm life, in home markets for truck gardening, poultry raising, dairy and berry supplies, and the general awakening of public spirit and enterprise in home conditions, surroundings and the well-being of the town, come the subjects of education, rural mail delivery and better roads, all intimately linked with the public weal and what the best interests of advanced civilization demand.

"The proper development of the summer business requires reasonable mail facilities, such as the rural delivery presents, and these two elements demand better roads.

When the writer asked the Secretary of State of New Hampshire for later reports on the State's newly discovered staple industry, it was found that there was none later than that which is here quoted. But Mr. Pearson furnished other evidence of the hearty approval of the tax-payers of the policy of

making it the State's business to bring summer residents in. There are now issued a number of more or less pretentious booklets and pamphlets by the Board of Agriculture, setting forth the advantages of New Hampshire farms for summer homes. They are more elaborately and more freely illustrated than any railroad advertising matter so far published ever seen. One of them is a book of seventy pages containing on every page one or more pictures of the summer residences of men well known as citizens of other States than New Hampshire, statesmen, artists, lawyers, writers and financiers. The pictures are supplemented with autograph expressions of appreciation for the State as a place of summer residence. Then there is a book listing over two hundred and fifty farms of from five hundred to one acre in extent, with houses on them, suitable for summer homes. The prices range from $300 to $3,500 and the owners usually express a willingness to take half in cash and the rest in a note at five or six per cent. interest. A township map of the State is included. Maine and Vermont presumably without intention are shown on either side as blank wastes.

A COMMONWEALTH OF RESORTS

I HAVE never found truer summertime equality than in Vermont—that crumpled tract of verdure whose every town is like a beautiful garden, whose every halting-place is a resort and whose whole surface is a park. Farther than the width of the Atlantic are the ways of our people in the mountain and lake resorts of Vermont from the habits of the summer idlers of Europe. It was in Vermont that I met a summer hotel-keeper who announced that he had weeded out of his hostlery, and refused ever to take back, several men and women who thought themselves better than his other guests and who presumed to select the persons who should join the ball-room committee, who were "fit" to participate in some *al fresco* tea parties and even those boys who might join their sons in membership of the baseball "nine."

It is in Vermont also that there is a well-known inn which serves as the mere capital of the camaraderie to which the surrounding town surrenders itself. There are many "inns" in this State, such as the Brandon Inn, Woodstock Inn, Bread Loaf Inn, and others. Vermont does more to perpetuate and rejuvenate the homely and honest old word democracy than any other State. The inn of which I write is in the heart of a bowery, lawn-carpeted village whose inhabitants leave their cards upon the summer visitors at the hostelry and welcome the strangers to their cosy white cottages so that, at the beginning of the season each year, the villagers and the visitors take all their pleasures together, now dining a village family at the inn and next day visiting a neighboring house for dinner; dancing in a village home tonight and inviting "the natives" to a dance at the inn tomorrow or exchanging afternoon tea-calls.

The towns of Vermont owe their beauty to the fact that practically every home is owned by its tenants and to the further fact that they find the entertainment of strangers a chief source of the State's income and, therefore, have learned to make their State attractive. Even the larger cities, like Burlington and Rutland, resemble towns built in parks, and the smaller places, such as Middlebury, Vergennes, and Brandon (which is called "the Drawing-Room Town") are all like so many beautiful landscape views. Many of the resorts pure and simple are at a distance from the railroads, in the Green Mountains and beside little mountain lakes. They began as fishing resorts and it is said that today more fish are caught in Vermont than in any other of the older States except New York. In these isolated resorts there is usually one large frame hotel with a summer population of 150 to 500 souls who could not exist if there were class distinctions among them, but who spend months of unalloyed pleasure in a society modeled almost upon family—or at any rate upon club fellowship lines.

THE OUTSKIRTS OF BRANDON, VERMONT

EAST WALLINGFORD, VERMONT, FROM THE SOUTH

Very recently the islands at the Northern end of Lake Champlain have been crossed by a railroad and put within a daytime or a night-time ride of New York, Philadelphia

A PASSING SHOWER ON THE VERMONT HILLS

and Boston. There are three of these islands: South Hero, North Hero and La Motte. They have been sleepy farming sections until now that hotels are beginning to deck them and "campers" are seeking their wooded promontories in fast-increasing numbers. They are beautiful islands, basking in a great freshwater sea with the Green Mountains and the Adirondacks towering on either side.

A striking peculiarity of Vermont, next in importance to its healthfulness, is the cheap-

J. H. McFarland

HOW THE RIVER RUSHES DOWN TO THE PLAIN

NEAR MOUNTAINVILLE, ORANGE COUNTY, NEW YORK

W. A. Boger

AT WOODBURY, NEW YORK

W. A. Boger

GOLF AT LAKE PLACID W. A. Boger

ness of summer living in the State. Its distance from the great Eastern capitals in the early days of slow travel necessitated modest charges and these have not yet been departed from. A railroad has canvassed the hotels and boarding houses of the entire State and issued a pamphlet showing, as I recall the figures, that board can be had for as little as five dollars per week, that six dollars is a fairly common price and that at some

A CLEAR DAY AT LAKE PLACID, NEW YORK W. A. Boger

W. A. Boger

HIGH FALLS, AU SABLE RIVER

of the best and most famous hotels terms for families or parties can be arranged upon a basis of from ten dollars a week upward.

THE GREAT NORTH WOODS

A forest six thousand square miles in extent! A forest embracing all of half a dozen counties and parts of half a dozen others! A wilderness six times the size of Rhode Island and three-fourths the size of Massachusetts, containing one million and one hundred thousand acres of the primeval woods, untouched by the axe, trifled with by man only as the Indians of a century ago stripped some of its birches to make their canoes! In all there are three millions of acres of these woods.

Such is the Adirondack wilderness!

A wilderness which is the resort of tens of thousands of summer holidaying folk who find there camps that are stately mansions and camps that are fashionable hotels. A wilderness with all the twentieth century comforts for those who can pay for them: hot and cold baths, telephones, gas, electric

Curtis Bell

LAKE BONAPARTE, NEAR THE HERMITAGE
In the Adirondacks

Curtis Bell

LAKE BONAPARTE SCENERY

The Adirondacks

A TYPICAL COUNTRY ROAD W. A. Boger

lights, the daily newspapers, golf links, tennis courts, ball-rooms, orchestras, ice water, steam launches, barber-shops—and all around these comforts the forest primeval, deer in rapidly increasing abundance, good fishing, 1,300 lakes and ponds; rivers and brooks in abundance, the purest, most invigorating air and hotels whose proprietors (either truthfully or with poetic license) advertise "summer heat unknown."

The "attractions" advertised by the hotel managers are all interesting though sometimes peculiar. One boasts "the only Indian left in the Adirondack region," another offers "isolation with accessibility," another warns away "consumptives and other objectionable persons." Again, one Boniface tempts us with the offer of "congenial company" while another unconsciously excites our antipathy with the statement that his place attracts "people of culture"—an awful prospect to either the man of ordinary intelligence and polish or the most learned and refined persons. "John Brown's grave" is thought to possess

AT THE SHORE OF LAKE CLEAR Curtis Bell
In the Adirondacks

a magnetic power to draw the gay and happy crowd; a trip hammer from an old forge is celebrated in another advertisement. "an air of neatness" pervading every part of a hostelry is another boast, "a view unsurpassed and terrible in its sublimity" is vaunted elsewhere and finally we learn that at one popular hostelry we "do not have to dress for each meal," though which meal or which two meals are partaken of *in puris naturalibus* the advertiser does not state.

A gifted lady novelist, who has recently writen a novel containing some exquisite descriptions of the Adirondacks and summer life therein, has marred her work by picturing the natives as objects of wonder and amused curiosity to the summer invaders, also by presenting the city people of a luxurious forest "camp" as exceedingly exclusive and at odds with the natives of the neighborhood. Her story is true to the life she has studied but it is not a life typical of the ways of those who give its peculiar charm to the experiences of the multitude which usually seek the forest. Her characters are English and imitation-English. The sojourners in the great North Woods are as thoroughly American as the woods themselves. Skilled hunters are "exclusive" when on the trail, your canoeist is not a gregarious animal when at his chosen sport and one never heard of a fisherman who loved his science inviting a whole hotelful out to thrash his cherished pools and holes. It is true that there are palatial "camps" owned by rich men who narrow their circles of friends as much as they please and there are "club camps," if I may call them so, maintained by coteries of old and fast friends who are sufficient company unto themselves.

But hunters, fishermen, wealthy householders and club coteries do not make up the summer population of the vast forest. They are not as numerous as the infrequent deer or as influential as the professional guides. The life in that vast cathedral of lofty columns and shady aisles is mainly what we call hotel-life and here again we have the free and unrestrained intercourse of all those visitors who find one another's company congenial. The great hives of happy idlers swarm upon the waters and the trails in boating and picknicking parties, in woodland excursions on foot and in mountain climbing exercises. In the evenings the adults chat, play cards or read and the younger folk dance and romp or seek the dark corners of the hotel porches to breathe into one another's ears the confidences of young girlhood or the tender messages of gentle souls that seek a mating.

I have seen a list of six hundred hotels, camps and boarding houses in the North Woods accommodating from half a dozen to five hundred summer visitors and offering board at from $6 to $56 a week. One authority says that "the rational expense of an Adirondack tour for one person ought not to be more than seven dollars a day and for two persons not more than ten dollars. I think that for a stay of two or more weeks at a moderately high-grade hotel in a choice part of the forest, twelve dollars a week for board and three or four dollars more each week for boats and other extras, will be found ample. In village boarding houses these prices may be cut in half.

Let no one who is susceptible to the charms of a grand forest and no one who wishes to experience those delights for the first time be in the least afraid that if he has not a coroneted ancestry and does not "live up to a China teacup of Nankin blue" he will find himself barred from the pleasures of his fellow visitors. To be *persona grata* to all he only needs to show himself of neat attire and cleanly ways, respectful to age and womanhood and willing to pay for entertainment with entertainment. Ten to one the hotel manager will volunteer to introduce him to a few persons of his own age and from these acquaintanceships others will follow and multiply.

But go as he will and behave as he may, the charms of the woodland will cling round it still. There he will find air refined first and then perfumed with balsam, shade which never departs and coolness that is not even wholly vanquished by the hottest summer sun, the quiet and repose of Nature amid her solitudes, where she wears her soberest garments yet decks them with a myriad blossoms and feathers of fern. At sea she ofttimes terrifies us, on mountain heights she subdues us with her majesty but in her forests she sets us at ease, at peace, in repose, and talks to the best that is in each of us.

Perhaps there is no shrewder doctor than this Adirondack wilderness, no bigger medi-

cine bottle, no surer, more irresistible tonic than the breathings of its trees. It is the largest American summer (and winter) resort; why may it not rank high among the best?

ALONG THE ST. LAWRENCE

There may be in Australasia or in South America—regions I have not yet visited—some more wondrously beautiful ornament of nature than the Thousand Islands of the St. Lawrence River, but in all of the world that I have seen there is nothing to compare with them. The enormous and majestic river, the crystalline clearness of the water, the myriad rocky tree-crowned isles and islets, the picturesque curving waterways and placid harbors, the great and little hotels, the costly mansions and picturesque camps, the swarm of shell-like canoes with their loads of men in flannels and merry girls in soft summer frocks, the flags and banners, the navy of stately swanlike steamboats and swift yachts, the fairy-like illuminations and gorgeous fireworks by night on shore and stream—these form a combination of visual delights unequalled, I believe, on earth.

In this beauty spot Canada and "the States," are joint partners. There are a great many more than a thousand of the islands: 1,300 or 1,800, I forget which. The adventurous amateur fisherman discovered them ever so long ago, but General Grant, as the guest of George Pullman on his one of the islands, turned national attention toward the resort as he also turned it toward his summer capital, Long Branch, when he was led to spend his holidays there by his friend, George W. Childs. Today the fishermen still resort in great numbers to the waters around the islands for the capture of muskallonge, pike and bass, but all the islands are now under private ownership. All that are suitable are the seats of summer homes and hotels and the entire great region of islands and mainland has become a summer park teeming with holiday visitors. Ogdensburgh, Clayton, Alexandria Bay, Thousand Island Park, Westminster Park, Round Island and Cape Vincent are the American centres of the summer population and old-fashioned Kingston and beautiful Gananogue are the Canadian resorts. Some very large and very fine hotels are maintained in most of these centres and the frigid isolation of those who follow fashionable life in the great stone mansions and costly frame villas on some of the islands does not chill the warm and kindly atmosphere of the democracy in which the great multitude of transient visitors spend their days.

Of democracy at the Thousand Islands I could a tale unfold to startle old world ears. It was there that a President of the United States, stopping as I did at a public hotel, arose and came to the door at midnight when I was belated and looked out, to let me into the house. That President was a famous fly fisherman (he was General Arthur) and whenever he enjoyed a good day's catch he used to send some trout or muskallonge, with his compliments, over to the reporters' table in the dining room.

The water sports are the chief attractions here and, though there are beautiful drives on the mainland and every hotel has its ballroom, the main joys of all the visitors are found upon the river, in rowing, paddling, fishing, sailing and steam-boating. I know of nothing like this summer life elsewhere in America. The noble St, Lawrence lies across our greatest national park of forests, lakes and streams and is the chief health-giver of the region.

ACROSS THE CANADIAN BORDER

THERE is no more interesting or more picturesque movement of population in this Western World than the annual northward migration of American holiday takers. Every year brings a larger number of these visitors from the United States into Canada; particularl, seekers after health and recreation.

It is natural enough that men and women should demand a partial cessation of the toil and worry, and hence there is the rush to Saratoga and Newport where,

despite luxurious living and a comparative respite from the bondage of business they dare not insist upon a perfect freedom from the telegraph ticker and the exactions of professional and commercial correspondence.

In Canada, the occupations and enjoyments of the American holiday seeker are of an entirely different character. It is true that many people of wealth and leisure from the neighboring Republic follow the beaten tracks of tourist travel across the Dominion, having been attracted in largely increasing numbers by the erection of luxurious hotels at Banff, Winnipeg, Toronto, Montreal, Quebec, Murray Bay and Roberval. These are the people who travel rather for pleasure and observation than for recreation and health, and though they include many of culture and refinement, who embrace the numerous opportunities which are afforded them in Canada for studying a variety of sociological and ethnological problems, are far from being so picturesquely employed as those whose vacation is spent amongst the Laurentian Mountains and in the Northern Woods.

If a complete census of this latter class could be taken it would reveal a number of interesting facts. The mere enumeration of the names of those Americans who spend their vacations in the backwoods of Canada would be a revelation. There are many men of prominence in American public and commercial life, who slip away for several days, and sometimes weeks at a time, into the depths of the Canadian forest, without anybody at all being aware of their exact whereabouts.

"How can we go abroad," Dr. Van Dyke asks, "without crossing the ocean, and abandon an interesting family of children without getting completely beyond their reach, and escape from the frying-pan of housekeeping without falling into the fire of the summer hotel? This apparently insoluble problem we usually solve by going to camp in Canada."

Except in some few of the Maine waters, there never were as large brook trout as are still to be found in the Nepigon, the Jeannotte, the Jacques Cartier, the Montmorenci, and Lakes Edward and Batiscan. Nowhere as far south as the United States does the ouananiche or landlocked salmon rise to the fly as in the Discharge of Lake St. John. Nowhere except in such high latitudes as the Nepigon and the streams of the Labrador peninsula do the whitefish rise to surface lures.

A large proportion of the best fishing waters in Canada are already in American hands. Mr. James J. Hill leases the St. John River on the north shore of the St. Lawrence for $3,000 a year and the St. Paul or Esquimaux for $500. Mr. H. W. de Forest, of New York, has leased, for a club, the fishing in the Grand Cascapedia, for $7,500 a year. Mr. Ivers W. Adams, of Boston, has purchased the fishing rights of the Moisie for $30,000, and has paid more than half as much for those of the Washeeshoo. Mr. Louis Cabot, of Boston, is the owner of salmon fishing rights in Gaspe, for which he has refused $50,000. The Restigouche Salmon Club, composed entirely of Americans, leases a number of rights in both New Brunswick and Quebec and owns a number of others. Its club-house is at Metapedia, and it is probably the most aristocratic fishing club in the world. Its membership shares are worth from $7,500 to $10,000 each, and its list of members includes many of the most prominent anglers of the United States. Ex-President Arthur, Mr. Vanderbilt, Mr. Calwallader, Mr. de Forest, Dean Sage, Billy Florence and Rev. Dr. Rainsford are a few of the fishermen who have whipped the waters of the Restigouche for salmon. The fishing in this river is principally done from canoes, and a good deal of the traveling up and down the stream is very luxuriously accomplished in house-boats.

The most difficult salmon filled rivers to reach are those on the easterly part of the Labrador coast, where a journey of five or six hundred miles by yacht, schooner or steamboat from Quebec is necessary. When the value of salmon fishing leases, and the cost of reaching the waters in which the fish are found are taken into consideration, and when the expense of building camps and of paying a guardian and guides are added thereto, it will readily be seen that only the wealthy can indulge in the sport. But the sensation of playing a salmon once enjoyed is never forgotten. Sometimes in its wild rushes when hooked it will take a run of a quarter of a mile at a time down a rapid. The panting millionaire at the other end of the line and rod may be paddled after it by his Indians in a canoe, or may have to chase it

along a rocky shore, sometimes more than knee deep in the water. His fish may keep him constantly on the run for half an hour at a time. Or it may go to the bottom, if a heavy fish, and "sulk" there for just as long, while the angler exerts upon it all the strain of which his tackle is capable. He may have well nigh tired himself out by fly casting before hooking his fish at all, so that when the salmon is finally brought to gaff, his arms ache more than those of any of his porters or warehousemen after a hard day's work, and he is glad to throw himself down upon the beach to rest his thoroughly exhausted limbs.

Amongst thousands of others whose destination is far from the usual haunts of men may be found those who are bound for an isolated cottage on one of the Thousand Islands of the St. Lawrence; others whose crude camp is by the shore of a newly found lake in the depths of the Canadian forest, or in a secluded mountain nook on the bleak north coast of the St. Lawrence, overlooking the ever cool salt water of Murray Bay. The summer home of another may be on the picturesque Isle of Orleans below Quebec, or in a far north territory which a few years ago was visited only by the Indians and half-breed trappers of the Hudson Bay Company, and which is now leased from the Government of Canada for the privilege of the fishing and hunting which is to be had in its woods and waters. Many of them belong to fish and game clubs owning lodges in the Canadian wilderness, and more, again, nightly pitch their moving tent, after the fashion of the patriarchs of old, or depend upon the lean-to in the forest, erected, as necessity may require, by the expert hand and axe of the Canadian *forestier* or guide.

It is not unusual for some of the American clubs to erect houses costing several thousand dollars each, and to control four or five hundred square miles of territory. Many club members erect cottages of their own on picturesque points of the preserves. Their guides are usually furnished by the management of the club, and are always waiting for them on their arrival at the nearest railway station or at the main clubhouse, if applied for in advance. They paddle the canoe, take charge of the supplies, cook their employer's meals, and, if he travel beyond reach of the club camps or of his own cottage, they pitch his tent or build him a shelter and make the fragrant bed of balsam boughs at night. As he travels from one lake or set of river waters to another, they carry his canoe, provisions and other belongings over the intervening portages.

The sport obtainable on most of these club preserves is about the best of its kind that America offers. Wonderful stories are told by visiting anglers of the number and size of the trout that they have taken and that still reward the angler's efforts in the waters of the Triton, the Tourilli, the Ouiatchouan, the Amabalish, the Laurentian and other American fish and game clubs. Fish of four, five and six pounds in weight are often reported, and catches of eight and nine-pound monsters are reserved for seldom told, larger stories.

To still more northern waters very many American anglers go to fish for ouananiche, the famous fresh-water salmon of Lake St. John and its tributary waters. In the immediate vicinity of the lake, as for example in the upper part of the Grand Discharge, where the fish rise throughout the whole season, anglers are able to return to camp at the Island House each night. If the sport is sought in the lower part of the Discharge,—which is really the upper waters of the Saguenay River,—or in the great northern feeders of Lake St. John, a tent is a necessity, for the sportsman and his guides are alone with nature and far from any human habitation. This is one of the charms of the sport. Another is the heaviness of the rapids and the wildness of the scenery where it is found at its best. It is a thrilling sensation to shoot them in the frail craft of the Montagnais Indians and to feel that nothing but a sheet of birch-bark and the untutored skill of the dusky guides stand between you and eternity. But they are wonderfully clever, these guides, and it is a constant marvel to watch them sometimes cutting off with their paddles the top of an advancing wave, at others holding back the canoe in the hollow of a rapid until the moment for shooting out of it, or perhaps lifting it up sideways to the crest of a favorable roll of water. Immense quantities of the foam churned up by the rapid succession of violent falls are continually floating down the various currents of the stream, and where

this is found, on the oily-looking pools below the rapids, the ouananiche are usually in waiting for the insect food that has become entangled in the foam. But the hooking of an ouananiche is only a small part of the work of catching him. In the vicinity of the rapids the fish can know no luxurious ease. The very excitement and unrest of their surroundings render inactivity impossible to them. Their leaps out of the water are prodigious, and he must be a very lucky as well as a very accomplished angler who does not lose a fair percentage of the ouananiche that he hooks. But that does not matter. It is the struggle

TROUT FISHING IN TEMISCAMING COUNTY, CANADA

William Notman

RAPIDS IN GRAND DISCHARGE, LAKE ST. JOHN

that counts, a struggle set in the midst of the wild beauty of the North woods, with the echoing rush of the waters singing in your ears.

E. T. W. Chambers

IN THE HEART OF THE WOODS

When the deer and other big game are in season, many of the best heads fall to American rifles. In the Province of Quebec alone, nearly a hundred hunting territories are leased to American sportsmen or clubs, some of them containing from one to three hundred miles each. In the Province of Ontario, over five thousand licenses for hunting deer were issued last year. New Brunswick and Nova Scotia receive every year an increasing number of moose hunters. Some sportsmen from the United States are acquiring the habit of coming here in the winter season to hunt large game on snow-shoes. Others, who have no taste for field sports, spend a winter vacation in Quebec, Montreal or Ottawa, to indulge in the invigorating pastime of

A CANOE RACE ON LADY EVELYN LAKE, TAMAGAMING LAKE, CANADA

snow-shoeing or to enjoy the sleighing, skating, hockey and other carnival sports and attractions of the Canadian winter.

There are often very hot days beyond the boundary, but there are few Canadian nights where a blanket is any discomfort, while on two nights in three in July and August a light overcoat is a luxury on Dufferin Terrace, beneath the shadow of the Citadel of Quebec. At Quebec the visitor may study conditions that even in this twentieth century of progressive activity and enterprise give to this little corner of America the appearance of a small patch of mediæval Europe. He may travel by electricity from Quebec to the shrine of Ste. Anne de Beaupre, and there behold the still growing pyramids of crutches left there by those, who, after invoking the aid of the good Saint, went on their way home rejoicing and cured. He will find that the descendants of those who fought for the supremacy of France in the New World, under the gallant Montcalm, are today as strong in their allegiance to the British Crown as were their fathers at the time that the English-speaking colonists to the South of them were driven into open revolt; and he will not be the first to hear them boast that the last gun in defence of British sovereignty in Canada will be fired by a French-Canadian.

E. T. W. Chambers

CAMPING ON THE ST. LAWRENCE

Canadians, on their side, are not slow to note the full significance of the annual invasion of the Dominion by American tourists. The annual expenditure of millions of dollars by

A CAMP ON LAKE TEMISCAMING

SHOOTING RAPIDS IN THE NORTH WOODS

A. R. Dugmore

these latter on vacation and sporting trips in Canada is by no means the most important result of their visit. No less an astute observer than Sir William Van Horne told me some time ago that the enormous pulp and paper mills at Grand Mere, on the St. Maurice,

CLEAVING A NORTHERN MIST

A. R. Dugmore

IN THE HEART OF THE LAURENTIANS—MONT STE. AGATHE

FROM THE ISLAND HOUSE, LAKE ST. JOHN

Detroit Photograph Company

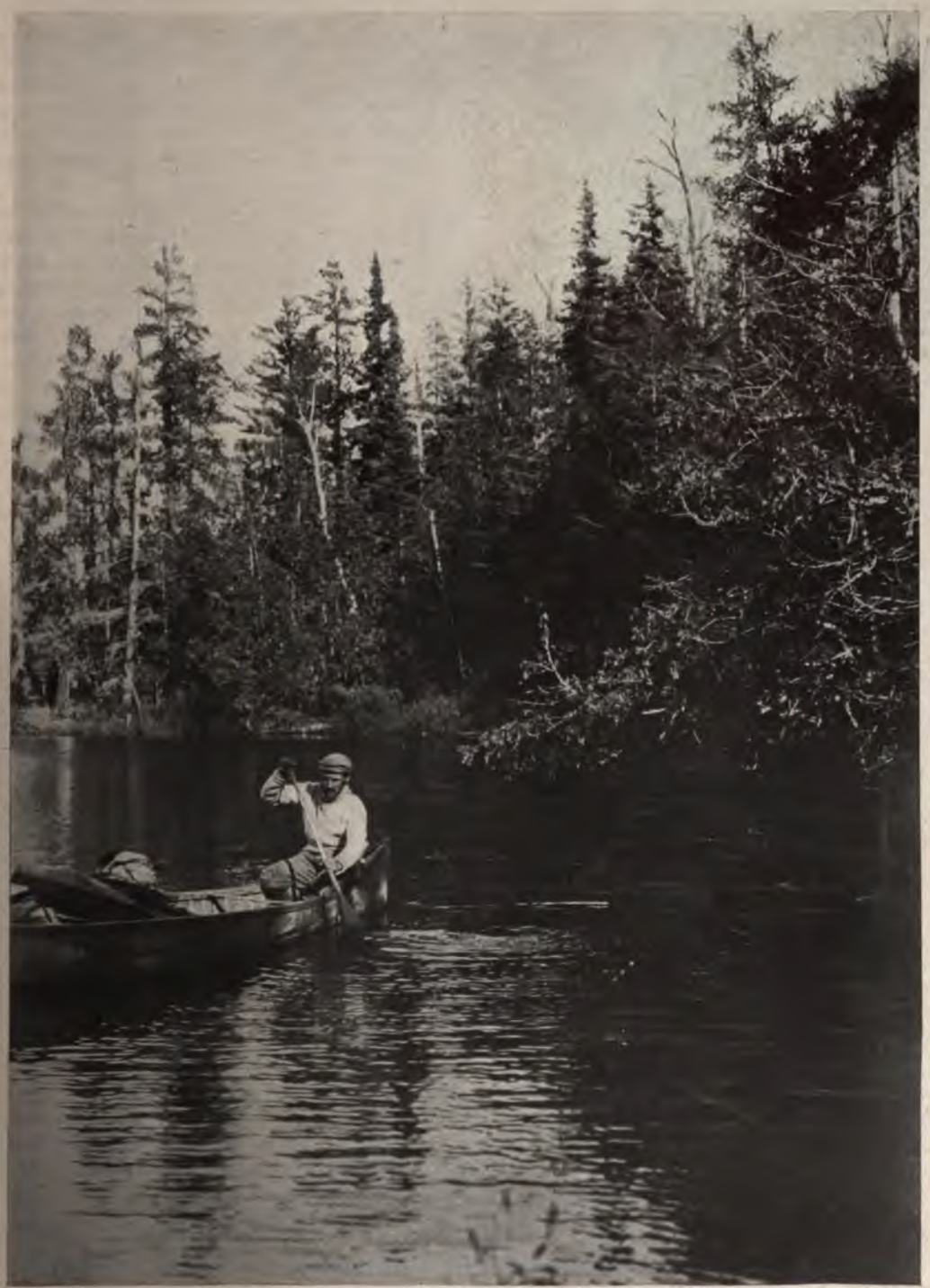
E. T. W. Chambers

WAITING

in which he is jointly interested with General Alger and others, might trace their origin to a fishing trip made into Canada by the General some few years ago, and that millions of American money have already been invested in British Columbia and the Northwest by capitalists who came to the country as simple tourists and sportsmen. To such an extent has the practice of Canadian investments spread amongst Americans that in some quarters there has been an outcry that the whole Dominion is in danger of being bought up by them.

The encroachments of both American and Canadian enterprise are making themselves apparent in portions of the Canadian wilderness which were unknown a few years ago, save to the hunter and the trapper. Pulpwood industries are denuding forests which only a couple of years ago swarmed with game, and are killing the fish in waters which were only yesterday the delight of the angler. So vast and far-reaching, however, are the great northern woods of the Dominion, that it will be many decades before they cease to furnish the great recreation field of the American people.

A NATURAL CANAL IN TEMISCAMING COUNTY, CANADA



A. R. Dugmore

TYPICAL AMERICAN RECREATION COUNTRY—THE MAINE WOODS

TYPICAL AMERICAN RECREATION COUNTRY—THE WHITE MOUNTAINS

C. P. Hibbard

J. H. McFarland

A NATURAL CAMP

J. H. McFarland

AMONG THE FERNS AND FIRS

J. H. McFarland

OVER THE HILLS TO THE SEA

TYPICAL AMERICAN RECREATION COUNTRY—PENNSYLVANIA

TYPICAL AMERICAN RECREATION COUNTRY—REVERE BEACH, BOSTON

N. L. Stebbins

TYPICAL AMERICAN RECREATION COUNTRY—SANTA CATALINA, CALIFORNIA

Lippincott

TYPICAL AMERICAN RECREATION COUNTRY—THE GRAND CANYON OF ARIZONA

Lippincott

W. H. Wilcox

TYPICAL AMERICAN RECREATION COUNTRY—THE CASCADE MOUNTAINS, WASHINGTON

TYPICAL AMERICAN RECREATION COUNTRY—THE GRAND CANYON OF ARIZONA

Lippincott

TYPICAL AMERICAN RECREATION COUNTRY—THE CASCADE MOUNTAINS, WASHINGTON

W. H. Wilcox

TYPICAL AMERICAN RECREATION COUNTRY—THE YELLOWSTONE PARK

FISHING IN WISCONSIN LAKES

THE Easterner or the Westerner goes in summer to the mountains or the sea, but whither turn the dwellers in the Mississippi States? The names they love are Mackinac—not really "ac" but "aw"—Nemadji, Little La Salle, Petoskey, Argonac, Manitowish, steeped in Indian legend. They go to the Great Lakes or the big North Woods. If they go house-boating, they go well up the Mississippi. Some go a-voyaging: it is not so far from Buffalo to Duluth as from New York to Liverpool, but the boats that ply between those Great Lake ports are fully as big as ocean liners and their trips take fully as long; and many people spend a summer week steaming through the vast expanse of three of the inland seas. They secure the detachment from ordinary life in which an ocean traveler luxuriates. Others go a-fishing—for a man's fish, the king of all fishes, the muskallonge. Others find hammock and veranda joys along a thousand miles of coast from Pointe aux Barques to Maratawa. Or sail on frigid Lake Superior. Or force their toilsome way up beyond Itasca into the pine slashes of the wilderness. Michigan, Wisconsin, and Minnesota are summer resorts by virtue of ozone distinct from the rarefied mountain stimulant in Colorado and from the balsam-laden breezes of New Hampshire and the Adirondacks, but as different from twice-breathed city air as either; by virtue of long white beaches with fresh-water surf creaming in from blue deeps; by virtue of big fish to which most New Hampshire trout are minnows; by virtue of opportunities for every outdoor pleasure but mountain-climbing.

Families from Saint Louis or Chicago spend the summer at Traverse Bay or Thunder Bay or Mackinac as Philadelphia families stay at Atlantic City or Boston families at Mount Desert. Their amusements, too, are similar, even to the bathing, though bathing in the Lakes is as different from salt-water bathing as trolling for blue fish from casting for trout. The ocean along our northeast shore is cold, very cold, but it shocks the red blood to the surface, where it stays. How cold Lake water is was shown by tests in Lake Superior which proved that a hundred feet below the surface the temperature varies not more than a degree throughout the year.

Once, on a sultry August day, a party of campers anchored their catboat off a rock on the Canadian shore of Superior. One of them, hastily undressing, dove with a shout and a splash into the thirty feet of clear, brilliant water just off the rock, and it took the united efforts of the rest of the party to pull him out and revive him: the cold had simply struck him numb. Tempered a little when it reaches the southern penninsula of Michigan, and even warmer in the sunshine on shallow sand-flats, the Lake water is still insinuatingly cold with a chill that does not create a swift electrical reaction. The bathing is pleasant: it is not excellent—no fresh-water bathing is.

Mackinac is the beauty-spot of the region. Once a holy of holies for the Indians, supposed to be a dwelling place of the great Manitou, later an American fort,—the old block-house is still standing,—the whole island with its picturesque scenery of dark woods and freakish rocks is hallowed with memories of La Salle and Marquette and all the early history of the Old Northwest. It has the wild beauty, the pleasant drives, the romantic suggestion that makes cozy honeymoon resorts. It has the sufficiency of quiet enjoyment that women love in cool summer places. The air is the true Northwest health-giving wine. And though Mackinac is the gem, the whole Lake coast is well enough supplied with natural charms like those of Mackinac to make it all a vast children-visited, woman-satisfying play-place.

But men go to the Lake country to fish. Many a lawyer and banker and weary professional man of other vocation, and business men by the score, toil industriously through the year in little Illinois and Iowa and Kansas towns, content in the anticipation of a few summer weeks with a rod on the big lakes or on one of the streams or pools that make Northern Wisconsin and a broad strip of Minnesota a veritable piscatorial paradise. There is probably no better fishing in the

world. Even fishermen who have landed salmon in New Brunswick or Oregon will confess a consuming ambition to catch a muskallonge, and the home of the muskallonge is the Lake country.

A muskallonge is a combination of alligator, shark, tiger, and bucking bronco. He has the mouth and teeth, the swiftness, the fierce spring, the untamed spirit. He could bite a man's hand off—and would. To land him is a strenuous joy.

It is no wonder that a fish that fights as the Lake country muskallonge fights, offers sport to draw a healthy man from the quiet pleasures of bathing at Petoskey, smoking in the moonlight on the deck of a Mississippi excursion boat, or even exploring that beautiful miniature of the Canyon of the Colorado—the Dells of the Wisconsin, curiously water-worn, tree-clothed gorges. Hunting deer in the Northern pines in the fall is not so keen a sport as landing muskallonge, and no summer wanderer enjoys more pleasurable thrills than the Middle Westerner who pursues the warrior fish in the Wisconsin or Michigan lakes.

A VACATION TRIP FROM THE ROCKIES TO THE COAST

THE man whose spacious vacation this recounts had an odd idea. One very hot day in Kansas City the thought arose in him that a waterfall is not merely a beautiful object, but a sublimated shower-bath—the more glorious the fall the more sublime the shower-bath. Gazing at a picture of the Yosemite Fall he said to himself, "Seventeen hundred feet! Water just sails down, gently floating, all fine spray, cool silver mist. That is the place for a new delight."

'Better come up to the Yellowstone," said a chance-met good-fellow who smoked with us as we rode through interminable shimmering Kansas cornfields. But fizzy devils in spattered playgrounds of sulphur and lime and scoria could not lure us then.

"Gang your ain gait," he cheerily replied—this was on the rear platform in Colorado—whether to us or to a streak of jack-rabbit pointed toward a clump of cotton-woods in the middle distance will never be known.

Now, there are four reasons why the first sight of the Rockies yields unbounded joy. Two match the reasons why Nebraskans are overcome at sight of the sea. The very vastness overwhelms the unready senses. No man, moreover, who knows what slept in "Pike's Peak or bust," can fail to feel on raising the soaring Peak on the sky-line a little of the thrill the pioneering emigrants, riding beside their prairie schooners, felt when its snow-cap first took shape for them among the clouds: like the ocean it connotes our nation-building. More than this, the canyons in the mountain wall are gateways to marvels beyond. The last reason is purely physical. The plain on which Denver lies just outside the canyon gateways is as far above sea-level as the summit of Mount Washington or Mount Mitchell. Air that has swept in, moist, from the Pacific, losing its dampness and weight among the pines of the Coast Range, sweeps across leagues of snow-fields where it sweetens; across deserts where it burns to dryness; across other snow-fields and forest-clothed, flower-carpeted slopes where it gains a clean fragrance double-distilled; till at last it blows down the eastern side of the Rockies a sheer intoxicant.

Far beyond the ends of the Denver streets rose the mountains; up through the arching branches of the shade-trees at Colorado Springs they were nearer; and the main street of Manitou, from the springs where gay crowds drank at the natural soda fountain, or gulped nasty but potent draughts of iron water, seemed to run on and up to the very snow banks on the Peak. These we sat on later, swallowing down the Soroche, but first we went through the Garden of the Gods.

Go through that strange play-place of Nature, when you do go, on foot or pony, and guideless. Else a voice will drone to you an endless list of stupid names for wind-carved red rocks that, unidentified, delight you with the weirdness of their sculptured contours. But see it all. Doctor Holmes's giant who hurled the con-

rate over Dorchester came here and l wondrous March pranks with the ledges.

next afternoon, far up on Pike's Peak, d the wooded belt, alarming volcanic oms developed in the burros: they would nd inhaling till the girths creaked, emit a ation of excruciating pitifulness. After or two, another mighty sigh would out like a little siren-whistle, passing iful. Our hearts were touched. Un- ed in burro-craft we turned back to a of trees, camped, and shivered till ng in cold that sought and congealed our narrow. At day-break from the sum- e saw the moon set as the sun rose. n mile of peaks stretched away in every ion except prairiewards, all pink-tinted dawn, flashing the first sun-rays from nows, so cold and still and endless under ead moon and the powerful sun half through the clouds and the dawn- as to stir thoughts of all the infinities.

m the bank of a trout stream over to- Cripple Creek the next afternoon, look- at those far mountains we had looked upon from the Peak, I remarked that eur is good to behold, but unam- s hill country—the Berkshires, for le—is more soothing to live with.

waterfalls for me," said a voice from wed-up mouth: he was casting. Quak- spens grew thick along that foamy , in which he stood knee-deep. Flick! y touched the water lightly. A swirl ht it into a forest aisle behind, and then sailed to drop in a little clot of foam. er—and the fly settled gently on the

Whish! Hunh! A living silver arch, g water drops high in the thin air, had rrow-like over the fly, and a jerk of the d "set" the hook, as the symmetry of the g trout's curve concluded in a splash. st is a sort of blur.

e's crazy," shouted the man with the amming his butt out hard to turn the l rush. He turned him down stream, he trout nearly snapped the tip in a rush up-stream. He turned him one and the fish went the other. There one of the regulation swoops from side , but there seemed to be a chug-chug le three-inch wiggles along the line.

hat the ——?" puffed the angler, clipping off his words as a rush checked by pressure to the left developed into a dragging pull to the right. By this time every rule of trout-fishing had been smashed to flinders. Every ruse of the man developed a new ruse in the fish. The line ripped here and there through the pool; the man was stumbling excitedly to and fro on the slippery stones; and always there was the chug-chug on the line. Ten minutes—fifteen minutes went by: the battle raged on. But what that fish was doing was a mystery. At length the fighter came stubbornly closer. Glimpses we caught of him were still mysterious till at last we had him over a sandbar: he was caught by the tail.

This explained his contrary actions, his endurance. The angling craft adapted to a fish properly hooked, I can testify, is impotent against one pulling tug-fashion straight ahead on a stern line. Trout, I know, are sometimes hooked in the body when leaping over a fly: to hook one close to the tail was, to us at least, surprisingly novel.

Cripple Creek was as satisfactorily Western as Boston is Eastern. Ten miles from town in the wilderness we had seen two blue-shirted figures just stepped from a Remington drawing, gaunt, sun-browned fellows, carelessly picturesque as to dress, theatrically devilish as to manner. Their ponies scuttered like startled coyotes, thump, thumpety, thump! on the sandy road; splash, splash! in two strides through a ford and on away up a little hill while the two wild-eyed youngsters whooped with barbarian yells at each bump! bump! of the saddle: and as they yelled, they shot—a "gun" in each hand pointed at arm's length skyward, flashes spouting recurrently. This was an anachronism by present Colorado standards; but our thanks are due to the youngsters, drunk no doubt, for creating for us in that valley a stirring picture of other days.

The overland train we caught at Florence was filled with vacation seekers picked up all the way from Boston to Denver, most of them on their way to California, though one hunter of big game with whom we talked had come up from New Orleans to go into the Idaho mountains from Missoula, ambitious to kill a grizzly. A whole party were exultingly going back to their last year's camp.

"Finest spot in the world," said one—

which was not quite true because that spot we found later, many miles from Meeker, whither he was headed. He went on:

"No mosquitoes: air's too thin for 'em! Plenty of elbow room! There's a million camps in these mountains, near the railroad: ladies, kids an' all that. Nice enough; they have a bully time. But we like room! Trout! An' deer! An'—say Billy, tell 'em about the bear."

Billy wouldn't. He blushed. Amid the unchecked laughter that rang through the smoking room, he could not save his face. We were mounting the Continental Divide to the Tennessee Pass. Outside the Arkansas boiled over its jagged bed and all the wonders of red and orange and purple cliffs made a foreground for vistas, dissolving as we rounded curves, of mountain behind mountain sloping gently skyward or soaring in sheer perpendicular lines to the clouds. East to the Atlantic the Arkansas hurried; beyond the watershed ten thousand feet high toward which we climbed, we should burst from the long tunnel to run beside the Eagle and the Grand whose waters reach the Pacific.

"Billy found an Indian's trail,—didn't you Billy?" good naturedly jeered the one they called "Perk."

"You see he thought it was an Indian's, a bare-footed Indian's," said he expansively to the room in general, "but it was a bear's"—he said it "bearr's," being a native of Wisconsin. "Billy was death on bears. He used to tell us how his uncle killed a grizzly out Oregon way with a lead pencil—eh? Billy? So Billy took a Winchester an' went bear hunting. 'Fore he got us to help he chased his invisible, but trembling, quarry—let me see,—six weeks I think it was."

"Three days," said Billy.

"At last," went on the story, "we went out together and beat up a neck of woods where Billy said the bear had its nest: he said it was a grizzly with fourteen rattles. Billy himself sat waiting at the upper end. And we did start the beast. We caught a glimpse of him now and then—like a black pig scuttering through the brush.

"He shot out of the bushes into Billy's open like a waddling sky-rocket, and, not seeing Billy, he sat up to look back. But Billy! His eyes bugged out like marbles. I tell you, gentlemen, his hair rose so fast his hat went up like a clay pigeon from a trap. He dropped his gun and in two strides he waded into that bear hell-bent-for-Kaiser. Excited? He kicked, he punched, he kicked again. His uncle, with the lead pencil and the grizzly, was nothing to Billy, bare-handed, mauling that scared, black, half-grown cub. It wasn't ten seconds before the bear found the mill too hot—*he* was no prize-fighter—and while Billy chased him into the woods, "rocking" him with everything he could reach, we rolled on the ground and laughed. When we came up to Billy he was sitting on the grass with his legs stuck out in front, looking at the rifle—he had picked it up. And crying!"

"Most of that's a lie," said Billy, "but I guess I did forget the gun," and, brightening a little, "I landed him a couple of good ones, though." And we all joined the mighty laugh that went up.

Through the Eagle River Canyon and through most of the Canyon of the Grand the party packed the rear platform. There was little talking. We simply looked—overwhelmed with the chaos of variegated prodigies.

"Gawd!" said the frivolous "Perk" as we whipped around a sudden corner. It was as much as might be said.

I was born with an ambition to swim in Salt lake. It is accomplished. It was really not worth thinking about so long. You ride out from Salt Lake City—where limpid rivulets flow down the gutters, two brooks in every street, East Fourth South Street and South Tenth West Street and North Eighth East Street and so on distractingly — to Saltair, over desert plains of gleaming salt and well out on trestle over the lake. You wade in, doubtfully. Nothing strange—unless you happen to have a scratch somewhere. You try to swim. Out come your feet: you cannot keep them down. Your chin sinks a little. Three stray drops get into your mouth and two into your eyes: simultaneously you go blind and choke to death. Somebody has written somewhere that it is a keen delight to "buffet the heavy waves when the lake is a little rough." I think the man who wrote that buffeted the heavy waves on shore: I would as soon buffet heavy waves of lye. Let me not disparage bathing in Salt Lake, though I like

the chillier ocean better: indeed all the Western baths are good, from the soda-water at Manitou to the hot sulphur pool at Glenwood Springs.

West away from Salt Lake City our train pulled out on Sunday, while the Mormons, who are much like other people, were going to the tabernacle, gazing for inspiration, I hope, to trumpeting Moroni on the Temple spire: for that statue has a breezy suggestion eminently uplifting.

Detroit Photograph Company

SUNSET ON THE STRAITS, MACKINAC ISLAND

The Desert! A shack stood in the foreground flauntingly: "Curlew Pat. Mail Carrier. Also Hotel. Don't shoot." A litter of tin cans was near. Aching miles of sage-brush and alkali swam away to a quivering purple distance. A coyote drifted over a little rise of ground. No other sign of life. No other motion except when a puff of wind wheeled up a white cloud of dust that, spinning a

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ON AN ELEVEN-MILE DRIVE
Bordered by white birches, in Michigan

Detroit Photograph Company

THE EDGE OF LAKE MICHIGAN
From a camp at Fort Sheridan, Ill.

of sage-brush, possibly splendid in color and line and mirage on long acquaintance but to a fleeting view by day a glaring, baking emptiness. Blessed were the deep-green, blue-flowered alfalfa fields when we saw them again at Reno, and thrice blessed the mountain air of the Sierras.

The Colorado and Utah Rockies are red; the Sierras are white, a bluish white—Alpine in their combination of snow and bare rock far up, deep emerald tree-clad slopes below, and the bluest of deep blue lakes snugly set far down in the valleys. Noticeable at Truckee, where the stage-road runs back to Lake Tahoe, was the tourist flood from Pacific towns to the mountains. All along from Denver we had lived and moved in armies of

moment, soon drifted down again on the endless sage-brush, the illimitable aching horror

Detroit Photograph Company

THE POOL AT GLENWOOD SPRINGS, COLORADO

HUNTING IN CALIFORNIA

Eastern tourists pouring into the wilds—camping parties, families, lone hunters and fishermen, rich and poor—for considering the distance from the East, transportation, wisely bought, is very cheap. Now, a similar army, though smaller, was augmenting the summer mountain population from the West. The cities had apparently emptied their dwellers into a thousand temporary cities and secluded wild spots unsurpassed in the world for picturesqueness, healthfulness, and opportunities for sport. And yet the cities were really by no means emptied, and other recreation fields were being sought from East-

C. J. Crandall

WHERE THE CALIFORNIA BROKER SPENDS HIS SUMMER
Climbing the Sierra Madre Mountains, 5,000 feet above Pasadena, California

SANTA YSABEL HOT SPRINGS, CALIFORNIA

port to Puget Sound, from the Tennessee Mountains to Fox Lake, Wisconsin. I wonder, thinking of the millions—the number is not too great—who go back summer after summer to Martha's Vineyard, or the Intervale, or the Adirondacks, or Petoskey, why we cannot realize that the wide sweep of our country is after all sufficiently little for us to know it better, why more of us will not go West. Happy are they who do go.

It is a long jump to the Yosemite from Reno, but let me pass the shifting scenes of Sierran heights where we hung by a wheel flange to shelves far up above amazingly beautiful valleys, not gorges like the Colorado canyons, but cozy, foliage curtained river beds, merely New England colossally expanded; of pleasant towns thick with teeming fruit trees; of little villages where oleanders grew in the door yards; of mining camps where hydraulic streams ate out the gravel banks; and lastly of the good salt water again and fantastic, hospitable San Francisco. More vividly stands out the dusty stage ride from Chinese Camp along the Tuolumne into the Yosemite Eden, and finally the Eden itself.

As the six horses of the last relay pulled the stage up Seven-mile Hill in the National Park we made slow progress through greenery gone mad. It rioted over the ground; it edged dreamy aisles in every direction; it hung aloft in waving banners; it roofed us

W. H. Hill

THE TENT CITY ON CORONADO BEACH, CALIFORNIA

[illegible] here for from $3 to $5 a week, or they may bring their own tents and camp free

LOST IN THE NORTHWEST WOODS W. H. Wilcox

two hundred feet above with woven branches through which clear pencils and rays of sunlight slanted down on the forest floor of long, brown, sugar-pine needles and on cones of prodigious size lying about. It is not the red-wood that fills you with amazement—one expects to gasp at those chunky, age-old giants that lift their scraggy tops so high: it is the sugar-pine, because that you can compare with pines you have known, mere saplings. As in the Oregon forests you ride through a shut-in world; cathedral-like, long, stiff interlacing branches grow from huge straight trunks sailing up so far your eye is lost in the bird-world. We met two San Francisco teachers in the Park, women, taking an independent outing by themselves in a little low carriage loaded with a camp outfit and drawn by a sedate old horse. They had then been a week in the forest. Their pupils must have been the better for it. They kept saying "The trees! The trees!"

Our first sight of the valley from the cliff where the stage road goes down realized every extravagant lotus-eating dream the imagination could conjure up. There is indeed one lotus-eating dream of a "land of streams, some like a downward smoke, slow-dropping veils of thinnest lawn" that

A DAY'S SPORT IN THE YOSEMITE Lippincott

IN THE GRAND CANYON OF ARIZONA

Copyright, 1900, Detroit Photograph Company

adumbrates a phase of it. John Muir has thrown the glamour of his enthusiasm over it. And yet that first view from the Tuolumne road, or that other view of the Yosemite Fall itself from the Merced's bank or from Glacier Point is undescribed and unpictured, and always will be undescribed and unpictured.

From the iridescent veil of that Bridal Veil Fall—now pink, now blue, now green in the sunset,—that never visibly reaches the valley floor to the white and noisy lap of the Illilouette, the Yosemite Valley is the fruition of the one germ of perfect natural beauty that slept in primordial nebulæ. In the night I went out under the stars to a little pool where the Merced swirls around a clump of willows and, plunging in, floated down stream in the icy water: El Capitan bore up his white forehead to the starlight just ahead, a single silvery rock pointing to

MORNING, PUGET SOUND

J. G. McCurdy

heaven as the sharp quartz boulder points on Emerson's grave: unreal were the dark walls of the Valley; murmurous the sound of many falling waters: most unreal the cataract of the Yosemite, in the dark a slim, white pillar gleaming from its black cliff background, soaring inaccessibly. What were the other scenes we had wondered at in the days previous to this!

SUNSET, PUGET SOUND J. G. McCurdy

After a week of little journeys, striking here and there a few miles to absorb the Valley from a dozen coigns of vantage, we were whipping the Illilouette one afternoon for mountain trout.

"Tomorrow," said a voice, "I shall take a shower-bath under the seventeen hundred-foot fall."

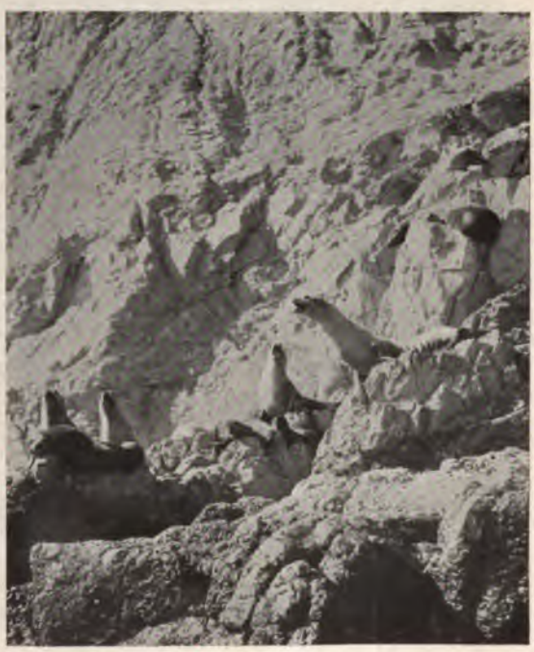
"You," said another voice, "are a fool."

"Not at all," came back argumentatively. "The river's very low. What there is of it turns to spray in the first hundred feet: it will simply come down like rain. Why, you'd go under the Bridal Veil yourself. Only that's prosaic. This is something big. Come on."

"Not I."

But I was there to see. The water, as he had said, came down, a considerable part of it in rain and spray that flew out on the wind incredible distances. But to crawl down, dressed in a bathing suit, closer to the main stream that falls to the pool and upon the rocks, with a murderous swish in the air and

Lippincott
TROUT FISHING IN CALIFORNIA LAKES



SEA LIONS OF SANTA CATALINA

Swenson

THE FAMOUS GLASS-BOTTOMED BOAT *LA PALOME*
Cruising about Santa Catalina Island

roar like a railway train's when it strikes a veering wind might swing the whole mass was daring to foolhardiness. At any moment upon the tall slim figure backing tentatively

THE CAVE OF VALDEZ
Low tide in the Kelp Gardens of Santa Cruz

on all fours down the jagged talus slope, his eye-glass pebbles glinting cheerfully. A steady breeze kept the fall swung out a little the other way and the spray burgeoned out far up the other slope. The roar was deafening.

All at once the wind shifted. The water swung back. And in a flash the human figure was blotted out in a deluge that turned me sick. For a second that seemed an hour it played on the spot, fiendishly it seemed to me standing horrified there, and then slowly it swept away.

And then there was a movement, a painful crawling movement down there on the slope, and I scrambled down the slippery rocks to help a blinking, creeping, much surprised youth, bleeding from a hundred cuts, up to where his clothes lay. He was still too dazed to speak. When his breath returned and his extra glasses were perched again on his nose, he said:

"The oceans fell upon me. For God's sake come back to New England."

And we went. But I must one day go back. It is part of my home-land. I must see again the prairie dog towns, the miners' huts high on the dark red cliffs, the little groups of Chinese at the railroad stations, the sapphire twinkling of Sierran lakes, the fleeting glimpses of shy wild animals, the mountain spires dwindling in the blue, the bush cities, those lusty brothers of ours that have carved home spots in the mountains and performed miracles in the wastes of sage-brush and cactus; the whole vast scintillating glory of the mighty land that gleams in the clear Western sunshine.

PICTURESQUE ISLANDS OFF THE PACIFIC SHORE

ALONG the coast, especially fringing the islands, chain-like strung from Santa Barbara to San Juan Capistrano, are gardens of the sea as fascinating as the gardens of the shore. Like a stone fence on land, the highway of the squirrel and the lizard, the great kelp forests constitute the highway of the fishes.

Most easily accessible of the islands is rugged Santa Catalina with its lofty cliffs rising from the ocean on one side, grim and inhospitable, and with small bays on the other reaching far into the interior; and around it is a sixty-mile collar of green kelp, its stems in places full four hundred feet long, the fluted leaves horizontally outspread near the surface.

The water in these gardens is intensely blue, and the kelp leaves in olive tints are seen in loops, coils and countless graceful shapes, forming halls, corridors and parterres as far as the eye can penetrate. In these retreats, these floating canopies of the "dark unfathomed caves," are many strange and beautiful forms suggestive of semi-tropical seas. The fishes appear to be the birds of the submarine forest. Some are brilliant, golden yellow, and poise daintily against the dark green arches, standing out against the sombre tints like gems. Here a school of vivid blue fishes drift by, while beneath them are deep yellow forms spotted and bespangled with seemingly electric lights which flash corruscations like sapphires, so brilliant that the boatmen call them electric fishes.

Among the dense masses of the forest are minute fishes which can be seen only when directly beneath the eye, so remarkable is the resemblance of the fish to the leaf both in color and shape. The little mimic is about a foot in length and has a frill-like dorsal fin the length of its body; the head is pointed and resembles almost exactly a diminutive kelp leaf. When to this is added the exact coloring it can be seen that this denizen of the ocean forest has strong affiliations with its surroundings. Not only in color does it resemble the kelp, but the fish assumes strange positions which add to the deception. It is almost invariably found standing on its head or the reverse, or coiled in a leaf-like shape, swaying like one in the tidal current. Even the crabs find protection in a similar manner.

Deep among the kelp leaves the shape of a mighty fish is seen—the king of the bass,

six feet in length and weighing several hundred pounds. The kelp forest is its home where it lies in wait, dashing out upon passing prey. Occasionally a brilliant silvery fish with the median line a vivid yellow stripe, moves by, telling of the jaunty yellow-tail, while a sombre form finely shaped, its head reflecting violet and other tints, is the white sea-bass. These are but a few of the inhabitants of the submarine forest. In mid air, so to speak, float innumerable gems. If some hand of Midas had sprinkled the halls and lanes with pearls, diamonds, rubies and sapphires the effect could not be more beautiful, as from countless gems, floating here and there, flash rays as from all gems which emanate from the Sapphirina, a minute crustacean.

In drifting over this forest some of the most attractive features of the picturesque islands are seen. The coast is often abrupt and precipitous, the wall of rock worn and eaten in a remarkable manner. At the bay known as the Isthmus, on Santa Catalina, the verdure creeps down to the edge of a precipice in which is found a singular though not large cave. The entrance is wide and high, but the cave is shallow, terminating in a little beach. Once in, a long tunnel is seen, just about the width of the boat, through which the careful voyager may pass, coming out around a point. The entrance of this ocean cavern is filled with kelp, and in shallow water many varieties of seaweed grow flashing tints of red, yellow, green and gold.

At the island of Santa Cruz the same charming island scenery is seen and the same rich forest beneath the blue waters of the Kurosiwo—the Black Current of Japan—which flows silently down the American coast. Santa Cruz is famous for its caves, one being without doubt the most remarkable cavern of the kind in this country. It is reached after passing a rough point, Point Diablo, and from the ocean is seen to be a large, black dome-like object at the base of a mountain. Approaching, the boat is forced through a thickly matted kelp bed and enters the cave which is now seen to be made up of several large and lofty rooms. In the first two the walls are curiously decorated in all the colors of the rainbow, caused by chemical action. The boat is pushed into the second and third chambers, drifting in water of a delicate green tint and remarkably clear, the bottom covered with algæ of many colors and shapes. Ahead is a black opening not much larger than the boat, through which the ground swell passes every few seconds producing a pandemonium of sounds—groans, roars, sucking, seething noises like the hissing of steam from some gigantic caldron, accompanied by explosions, come rushing forth to warn and appall the mariner. But the boat is pushed on directly after the ingress of a roller into the largest chamber of this wonderful ocean cavern. It is absolutely dark except at the entrance which now appears like a great star occasionally shut out as the waves come rolling in.

The entire seacoast of this island is cut and worn into caves and as the precipitous and rocky shore line is followed there is a constant series of explosions, the air forcing water violently outward or engulfing it in convulsive swallows to eject it again. The shore is cut into fantastic shapes. At the end of Anacapa Island a fine arch appears, lofty enough for a large vessel to sail under, and not far distant is sighted a mammoth basin, cut out of the rock, and a graceful arch. At Cueva Valdez another remarkable cave is found, worn out by the constant lapping of the Black Current. This is partly on land, its roof extending out over the little bay where its shadow merges into the kelp forest that still follows the shore line.

If these caves and the picturesque islands were in the Mediterranean they would be the Mecca of tens of thousands, but being off the coast of California they are rarely visited except by the few. The entire island of Santa Cruz is fascinating. Landing at a little bay one ascends a long cañon filled with live oaks, using the bed of an arroyo as a road and finally entering a happy valley environed by mountains which might be a thousand miles from the ocean; yet just over the ridge flow the waters of the Kurosiwo and lie the gardens of the deep sea. The little valley is the occasional home of the owners, and an old French mansion with a French horn beneath the verandah, a little chapel, a winery and acres of vines loaded with grapes tell the story of the French-Swiss wine makers of Santa Cruz, thirty miles at sea off the California coast, yet in the heart of the Black Current of Japan in the gardens of the sea.

HOW LABOR IS ORGANIZED

THE CHARACTER OF SOME OF THE UNIONS—HOW THEY DO THEIR WORK—THEIR FRANK PREPARATION FOR A GREAT STRUGGLE—SOME DETAILS OF THEIR MANAGEMENT—THE DREAM OF A GENERAL FEDERATION OF LABOR

BY

RAY STANNARD BAKER

TO the historian of our time two events will stand out, each of which by some will be regarded as a grave danger to American institutions, and by others as the most perfect instrument of development and progress. Almost every American has already taken his position firmly, though perhaps unconsciously, in support of one or the other of these views.

The first of these events is the organization of the greatest corporation in the world; for the United States Steel Corporation, with a capital of more than a billion dollars, is merely the extreme manifestation of the tendency toward the combination of monied interests under the control of a single man or of a group of men,—in other words the widespread establishment of money monarchies.

The second of these events is the nearly complete unification of the workingmen in coal-mining,—one of the most important of American industries. Their organization, the United Mine Workers of America, has now the largest membership and perhaps the greatest influence of all the trade-unions ever formed. Its membership is more than 190,000, supporting a population of nearly a million people and influencing a much greater number. The United Mine Workers in their turn are only the extreme example of the tendency toward the more perfect combination of labor in every branch of industry. Indeed, never before were the workingmen so thoroughly organized, or the unions so rich or so determined. Every tenth voter in America is a member of a labor organization.

The chief purposes of both kinds of organization may be stated in almost identical language: to regulate competition—one with rival (non-union) companies, the other with rival (non-union) labor; to control markets—one the market for its various products, the other for its only product, labor; to regulate wages—one to pay as little as possible, the other to get as much as possible. The methods of accomplishing these purposes are also curiously similar. Both seek stronger and closer organization in order to crush out the non-unionist, whether company or "scab"; both offer money benefits, the one in dividends the other in insurance, sick and out-of-work benefits, which in the long run amount to the same thing; both seek to extend their own markets—the one by controlling sources of production, securing lower freight rates and so on, the other by the use of the boycott and the union label; and both seek for favorable legislation. Finally, the tendency of organization on each side is remarkably similar. The familiar idea of "community of interest" has been worked out, in the Steel Corporation, for most of the important financial interests of the country—the Standard Oil Company, the copper interests, the great banks, the railroads, ocean transportation companies, mines and mills—are represented in its directory. The same sort of solidarity, though possibly less in degree, exists on the side of labor. In the councils of the American Federation of Labor are the officers of such organizations as the United Mine Workers, the Brotherhood of Carpenters, the Machinists, the Cigar Makers, the Garment Workers, the Iron and Steel Workers, the Textile Workers, the Painters, the Clerks, the Coopers and several score of other national and international unions, representing a membership of a million and a quarter of men. It is nothing that a few prominent unions like the four brotherhoods of railway workers, the Bricklayers and the Plasterers are still outside of the combination; so there are independent steel-plants outside the Steel Corporation, yet the federation on one side and the corporation on the other

are strong enough to control the situation; and it is safe to say that the organizations outside the American Federation are much more in harmony with the master body than the independent steel companies are with the "trust." Indeed, there is apparently just enough outside opposition in each case to quicken the energy of the leaders.

Another similarity is the growing centralization of power in the hands of a few men. I have spoken of a "monarchy of money"; Labor, too, is growing more and more a monarchy. Trade-unionism is tending toward the centralization of power in national and international unions, each of a single industry, the governing board of which, and especially the president himself, is yearly getting greater power. A few years ago the members of almost any local union, say in New York City, could throw down their tools and strike. But now permission must usually be obtained from the officers of the national organization who are perhaps located in a distant city. More and more, also, is the money collected by the unions coming under the control of a few national leaders. In some unions, as in the case of the Cigar Makers, hardly a cent may be expended without permission from the all-dominating directory, really the president himself, in Chicago.

The first great general organization of labor in this country, the Knights of Labor, which still has an enfeebled existence, was modeled on the fraternity system. It had all the paraphernalia of passwords, regalia and ceremony known to freemasonry: it laid great stress on secrecy; and it accomplished much in arousing workingmen to a realization of their own power when properly organized. But while it gave social expansion it could not secure the desired practical results in higher wages, shorter hours and more favorable laws. Moreover, it made the fatal mistake of dabbling in politics, thus arousing the party animosities of its members. But the moral defect of the Knights of Labor lay in its fundamental composition. It depended on the adhesive strength of class feeling—workingmen for workingmen—a mere sentiment, whereas the new unionism derives its great adhesive strength from a narrower but much stronger feeling—the trade feeling, the common interests of plumber with plumber and printer with printer. A single body of the Knights might contain carpenters, garment-workers, brewers, bakers, and so on,—a jumble of trades without common interests, common grievances, or common aspirations, and with not a few rivalries. Obviously, the broad, theoretical interests of workingmen as a class could not overcome the nearer and more vital trade interests and rivalries. The unit of the new unionism is the local union composed wholly of workers in a single trade, a union of printers here, of plumbers there, every man in each union depending on the same employment for his daily bread, earning practically the same wages, working the same hours, meeting the same difficulties and achieving the same successes. Obviously a union of this sort became at once highly effective; it needed no masonic mystery and comparatively little artificial social attraction to hold it together. Thus the unions have become non-secret, intensely practical business bodies. At the same time they have steered wide of attempting united political action. I do not mean that labor has not influenced legislation, because its successes in securing favorable laws during the part few years have been notable, but as yet little attempt has been made to unite the labor vote.

Each local union has the regular officers including the important business agent (once called "walking delegate," a name now generally discarded). One officer, usually the secretary-treasurer or the business agent in large unions, sometimes both, receives a salary equal to the pay which he would get if he worked at his trade, together with small expense allowances. Members are usually required under penalty of fines to attend a meeting of the union once a month, or once in three months, although in some cases where the unions are very large no such requirement exists. For instance, "Big Six," New York Typographical Union, including all the printers of the city, would require a very large building to contain its 5,500 members. But this is the largest local union in America. The Cigar Makers have no fewer than ten local unions in New York City with a membership of nearly 6,000, an average of 600 members to the union.

Certain unions of peculiarly skilled workmen require a rigid examination before admission—the Electrical Workers, for in-

stance, who maintain a regular examining board, consisting of two members of their union and two members of the employers' association before whom the applicants appear and answer a carefully prepared set of questions. Membership in the union becomes a certificate of skill, and the employers recognize it as such. Only recently an electrical workers' union in New York paid back more than $2,800 in fees advanced by applicants for admission who failed to pass the examination. The steam-fitters and other unions have equally severe examinations.

The greatest diversity of opinion exists as to initiation fees. In some unions a large fee is collected, sometimes as high as $50 or $75 or more, on the ground that a man who pays a large sum to get in will be more likely to remain loyal; but other successful unions charge as little as $2—the Cigar Makers' fee being only $3. The dues subsequently collected are usually about one dollar a month, this low payment often including liberal benefits in case of sickness, strike, or death. Many of the unions now use the stamp system in collecting their dues. A little book is presented each week or each month to the treasurer who pastes in and cancels the official stamps of the union for the amount of the dues paid. It is a sight worth seeing on a Saturday or a Monday to watch the workmen or their wives or their children, each with a book, lined up in a long row at the office of the treasurer of certain unions, waiting to pay their dues.

The local union is the unit of the whole system of organized labor, but they are gathered into various great combinations. All the unions of garment workers, for instance, are united in a national organization called the United Garment Workers of America; similarly the unions of printers make up the International Typographical Union, the locomotive engineers have an organization called the Grand International Brotherhood of Locomotive Engineers. Each of these organizations has a central office, the Engineers in Cleveland, the Garment Workers in New York and so on, and delegates from each local union meet yearly in convention. The officers, many of whom are paid salaries varying from $15 to $40 a week, are constantly traveling about, organizing new unions and in case of a strike offering advice and distributing pecuniary assistance. The national unions everywhere serve as clearing houses for information and advice, decide disputes between local unions, and by publishing periodicals devoted to the interests of the trade, keep union members informed about wages, hours, agitation, strikes and so on throughout the country.

The local and international unions are devoted each to its own trade, but they represent only a part of the labor movement and the part that is least known and least effective in its influence on public opinion and on legislation. In order to unite all these various trade-unions that the solid influence of the entire labor movement may be brought to the accomplishment of certain definite ends, various other organizations have sprung up, unions of unions, representing every trade in a single city, or a single State, or in the nation. Nearly all the effective work in securing favorable laws, in boycotting, in settling difficulties between union and union or employer and employee have been the work of these federations and associations.

Nearly every large city has a central labor union, a body made up of delegates from all, or nearly all, the local unions of every trade. For instance, the Central Federated Union of New York City is an association of 116 local unions—butchers, carpenters, tailors, piebakers, engineers, cigar makers, printers, and so on. It meets once every month, is supported by dues of $2 a month from each affiliated union, and has for its purpose the discussion of methods for the general benefit of labor in the city. In some cases the city labor union sits as a sort of court to decide disputes between local unions. For instance, the boiler makers and the sheet metal workers dispute over a job and the central body decides that all jobs in iron known as No. 12 and heavier shall be worked by the boiler makers, all lighter by the sheet metal workers. In New York the Central Federated Union has two sections—a building trades section having charge of all unions in any way connected with the construction of a building, from carpenter to elevated builders, and a miscellaneous section. The latter includes the allied printing trades council, a powerful organization in itself, including all unions connected in any way with the business of printing and publishing. In some cities the

building trades councils possess much strength, having committees which meet the contractors and employers and settle such disputes as may arise. The recent strike in Chicago which tied up all building operations for months was the work of the building trades council, which had attained a power so nearly absolute that it approached a despotism under which the employing contractors were all but helpless.

In the same way that federated unions are formed in cities, similar organizations have arisen in many States, the purpose being to influence legislation by the introduction and steady championship of bills favorable to the cause of labor, on the subject, for instance, of the eight-hour day, employers' liability in case of accident, the regulation of sweat-shop work, the organization of labor bureaus, and so on.

But the greatest of all American organizations is the National Federation—the American Federation of Labor—of which Samuel Gompers is president, with headquarters in Washington. A great combination of national and international unions, with yearly conventions of delegates, a staff of well-paid officers and organizers, an extensively circulated magazine, this federation includes nearly all the great national and international unions. The American Federation of Labor was founded in 1881 and is now made up of eighty-two national and international unions composed of 9,494 local unions, 16 State Federations, 206 City Central labor unions, and 1,051 local unions not attached to national bodies. The total membership is over 1,250,000—a body of men united for the single purpose of advancing the cause of labor, and yet taking no political action. This number represents something more than three-quarters of all the trade-unionists in America. The Federation is supported by a small tax on affiliated organizations, its receipts last year being about $71,000, its expenses $68,000, mostly for salaries and organizing expenses, and for the annual Convention. Its chief work consists in securing legislation in the United States Congress, in harmonizing and directing union effort in the struggles common to all union labor; in using its influence in securing the use of union label goods and in behalf of certain kinds of strikes, and in urging union labor everywhere to refuse to purchase goods manufactured or sold by "unfair" concerns. Every month a long list of these "unfair" houses appears in the *American Federationists* under the heading, "We Don't Patronize." Not infrequently it is able to prevent ill-advised strikes. The Federation has been instrumental in securing the passage of many laws which have greatly improved the condition of American workmen. A bare list of them is evidence enough of the remarkable rise in standards during the last twenty-five years of wages, comfort and independence among the workers of the country.

Yet the union's appeal to self-interest often fails and the workman's eleventh commandmen—"Thou shalt not take thy neighbor's job," does not always hold men together in unions. But the more skilled and intelligent the workmen the less likely are they to desert and the stronger the union. Thus, the various railroad men, the engineers and the firemen especially, have most excellent and compact organizations. The building trades—carpenters, brick-layers, plumbers, and so on,—the printing trades, the cigar makers, the garment workers and others possess good organizations.

Owing to the difficulties and detached locations of their work the coal miners have also been able to build up a strong union, and the iron and steel workers, in spite of the recent disastrous strike, are well organized. Some unions, such as the stereotypers, and the photo-engravers, include practically every workman at their trades in America; other strong unions, like the cigar makers, have eighty-five per cent. of the total number, the printers probably have over ninety per cent. and in most of the building trades nearly every workman is a union man.

On the other hand, it is almost impossible to organize certain trades, especially those requiring little skill. Day laborers have never been successfully organized; the retail clerks, while they have unions, are not strongly organized, because their places, if they strike, can easily be filled, and because a clerk, especially in the smaller towns, is always looking forward to a business of his own. Similarly, street-railway employees in the larger cities have never been successfully organized, for the work of a motorman or a conductor is easily learned

and there are always men clamoring for the places.

In order to minimize the difficulty of holding men in the unions in the face of defeat or against the temptation of higher wages or other advantages, many attractive schemes have been devised. For instance, many local unions, especially in the larger cities, are in effect clubs and employment-agencies combined. Usually there is a more or less attractive lounging room where men may meet and play games or read books and newspapers. When a member loses a job he goes first to the office of one local union, where he finds not only sympathy and advice but the chance of another job. Some union offices have telephones by means of which employers may instantly communicate with the secretary and secure the men they need. While I sat half an hour one afternoon in the office of "Big Six," no fewer than three employers telephoned for printers, and the secretary, stepping into the club room, found a man each time and sent him post-haste to the new place.

But the union has still other means of holding its men, for it constitutes in many trades a great insurance and benefit system. A regular weekly payment of dues insures a man's family of a benefit at his death, and in many instances it pays his doctor's bills, gives him relief when he's out of employment, and sometimes even enables him to secure loans of money to tide over a serious difficulty. Several great unions rest upon their benefit systems as upon a rock, the members being willing to do almost anything rather than surrender this advantage.

In the Cigar Makers' Union the insurance and benefit system has had its most complete development. During the past twenty-one years the Cigar Makers' International Union, which now includes some 465 local unions with about 35,000 members in the United States and Canada, has paid out nearly $5,000,000 in benefits to its members and their families. In 1900 the insurance and benefit disbursements were:

For death benefits	$98,291.00
" sick "	117,455.84
" strike "	137,823.23
" out-of-work benefits	23,897.00
" loans to traveling members	33,238.13
Total for year	$410,705.20

All these various benefits are obtained by members on the payment of regular dues of thirty cents a week (certain old men and partial invalids pay only ten, fifteen or twenty cents and are not entitled to all benefits). In case of death the family of a member receives from $50 to $550, and in the event of the death of his wife a member is paid a benefit. The benefits to men out on a strike were much larger in 1900 than usual, owing to a great strike in New York City. Instead of $117,000 paid in 1900 the sum in 1899 was only $12,000. in 1898 only $25,000, in 1897 only $12,000. Perhaps the most unique of all the benefit features is that of loans to traveling members. Any man who wishes to travel or to seek a job in another city may take a little book not unlike a bank book, upon the presentation of which at any union in any city in America he may borrow as much as $20. As soon as he gets a job he pays back the money to the treasurer of the nearest local union. Secretary Brown, of Union 144, New York, told me that there were some 4,000 cigar makers constantly traveling about the country, some of whom had been in every part of America, working . Very little money is ever lost, for membership is too valuable to be trifled with. Once a member plays false, he is forever barred from the union.

Before leaving the subject of benefits especial note must be made of the home maintained by the International Typographical Union at Colorado Springs. Originally founded by a contribution from Mr. George W. Childs and Mr. A. J. Drexel, it is known as the Childs-Drexel Home for union printers. It costs yearly for maintenance about $35,000, and it accommodates one hundred patients. It is a source of pride to every union printer. "Big Six" of New York also maintains a farm where its worn-out members may rest and recuperate.

Another influence that assists powerfully in holding the unions together is the trade-journal published usually by the national unions, but also by a few local unions, and by the American Federation of Labor. There are more than 250 of these periodicals. Not a few of the union journals are printed in two languages and in some cases in three. I have before me a number of the *Locomotive Firemen's Magazine*, a publication beautifully printed and illustrated, containing nearly 200 pages of reading matter and pictures, and

nineteen pages of advertising; and much matter is interesting to the "general reader."

In 1900 the money transactions of the Cigar Makers' Union exceeded $1,000,000, and though money came through the hands of hundreds of treasurers, the losses from errors or dishonesty were not $300. The money paid in by members was expended as follows:

For Benefits	$410,705.20
For Salaries and Committee Expenses	85,900.34
For Hall Rent	13,234.22
For Stationery and Postage	10,605.46
For Label Agitation	31,383.67
For Lawyers' Fees and Expenses in Label Cases	1,991.70
For Assistance to Unions During Strikes, etc.	152,785.42
For Tax to International Union	29,150.00
For Galveston Relief Fund	103.10
For Loss in Defunct Banks	1,078.37
Balance Cash on Hand January 1, 1901	$314,806.24

In its relations and conflicts with employers, the last few years have seen notable changes in the ways of unionism. Although the old method of the strike is still the accepted means of forcing an acquiescence to union demands, and although there have been more strikes during the past ten years than ever before, yet the strike is more and more looked upon as a thing to be avoided if possible, as a last resort, an appeal to brute force when diplomacy fails. This feeling is growing more pronounced among workmen every year, partly because of the changing attitude of employers. Once the labor union was looked upon with contempt by the employer, but today in most trades, the employer recognizes the union as a sober business reality, having often a salutary influence in steadying competition; and he is willing to meet it half way. As a result, associations of employers have sprung up, especially in the building trades—like the Building Trades Associations of various cities. These appoint committees to meet similar committees from the unions and to discuss wages, hours and so on. In New York the employing printers have an association known as the Typothetæ, members of which hold regular meetings with a committee from the Typographical Union, a workman being chairman of the conference. More and more, also, unions enter into written agreements with employers for a certain set period—from one to three years—covering all questions of hours and wages. In some cases bonds are given to assure the literal fulfilment of the contract. "Big Six" has an agreement with the New York *Tribune* with a $5,000 bond forfeit on each side.

In proportion as the strike is discountenanced, and especially the violent strike, the unions are devising new and peaceful methods for accomplishing their purposes. They have invented the union label, the newest and perhaps the most effective instrument. Originally used some years ago by the Cigar Makers of San Francisco in their conflict with Chinese labor, its application has spread until all trades-unionism now looks to it as one of the most successful means of waging the struggle with combined capital. By agreement with the manufacturers the labels, copyrighted by the unions, are attached to the various products of factory and mill, each box of cigars, for instance, each piano, each garment, each brick and so on. A few unions, notably the famous "Big Six" typographical union of New York, with nearly six thousand members, have imposed a fine for purchasing any but labeled goods, provided they can be had. Union Label Leagues and Women's Label Leagues have sprung up in various parts of the country and some of them already count a large membership.

The demands of the American Federation of Labor made in resolutions at its annual Convention, will give an idea of what American workmen are thinking about, and what they seek. Here is the list of the demands:

1. Compulsory education.
2. The repeal of all conspiracy and penal laws affecting seamen and other workmen, incorporated in the Federal and State laws of the United States.
3. A legal work day of not more than eight hours.
4. Sanitary inspection of workshops, mines and homes.
5. Liability of employers for injury to health, body and life.
6. The abolition of the contract system in all public works.
7. The abolition of the sweating system.
8. The municipal ownership of street-cars, waterworks and gas and electric plants for the distribution of heat, light and power.
9. The nationalization of telegraphs, telephones, railways and mines.
10. The abolition of the monopoly system of land-holding and the substitution therefor of the title of occupancy only.
11. Direct legislation and the principle of referendum in all legislation.
12. The abolition of the monopoly privilege of issuing money and substituting therefor a system of direct issuance to and by the people.

DRESS PARADE

WEST POINT AFTER A CENTURY

THE CHARACTER OF OUR MILITARY ACADEMY AND THE WORK IT DOES — THE NEW ACADEMY THAT IS TO BE BUILT—THE FOREMOST MILITARY SCHOOL IN THE WORLD

BY

FREDERICK PALMER

(Illustrated from photographs taken for THE WORLD'S WORK by Frances Benjamin Johnston)

THE recent fitting celebration of the centennial of the Military Academy at West Point makes opportune description and appraisal of this great institution of our Government and foremost military school in the world.

The Memorial Hall of the Academy is as simple and massive as the virtues of the heroes whose deeds it records. But better than the paintings or bronze plaques which adorn its interior, we had, on the first day of the centennial, the presence of living men whose careers cover more than half the Academy's span of life. Between them there was a fellowship which only one other institution, Annapolis, can provide. They all knew one another personally, or felt that they did, from following the War Department's orders day by day, and from the talk of the mess. Graduates of civil colleges enter different occupations

UNLOADING A PACK TRAIN

THE MONUMENT TO COLONEL THAYER
Gymnasium in the background

and develop different tastes. West Pointers follow the same occupation; they ever have the common spirit of the corps and the tastes of the soldier.

On the floor sat the graduates of classes not later than '62. On the stage were those of '62 or previous classes, including General Longstreet, of '42. Such youngsters as General Horace Porter, our Ambassador to France, were in back seats. In the chair was General Schofield, the only living one of the great Union commanders. From the applause which greeted two points of his address you might well have judged the type of man who officers our army. In the first place, he said that West Point was an aristocracy—an aristocracy of character; in the second place, that as long as it drew its material from the respectable families of the country its ideals were in no danger.

The great speech of the occasion, which will long ring in the ears of those who heard it, was made by the ex-Confederate, General E. P. Alexander, who commanded Longstreet's guns at Gettysburg. Indeed, this feature of the programme is about as near as West Point has ever come to official recognition of the Confederate army. He stood in a room bold with the memory of the great struggle. Its walls were hung with portraits of fellow-graduates whom he had faced in action; with the time-frayed, bullet-torn flags of the regiments of the regular army against which he had directed the shells of his guns; while most of the names of the battles on the frieze recalled stubborn fields in which he had been numbered among the enemy. It is small

THE BATTLE MONUMENT

* U. S. Grant, Regimental Adjutant

GUARD MOUNT

Daily morning inspection of detail for sentry duty

wonder that the old artilleryman's voice trembled as he began or that the response of the audience to his sentiments should have made him feel that two of the names on the frieze, Santiago and Manila, have blotted out the last vestige of sectionalism and that in all the deeds of the past, whether done in blue or in grey uniforms, the West Pointer feels a professional pride. The trained soldier was the first to recognize that in our greatest war we have the heritage of the glory of both sides. I have heard many speeches by famous speakers, but never have I heard one which affected me as much as this unpretentious, straightforward, loyal talk of a soldier who had fought and lost and who con-

ROLL CALL AT MEAL-TIME

Formation in front of cadet barracks

PONTOON BRIDGE BUILDING—LAYING CROSSPIECES

PONTOON BRIDGE BUILDING
Binding the timbers at the beginning of the bridge

PONTOON BRIDGE BUILDING
Laying lengthwise timbers

PONTOON BRIDGE BUILDING
Laying crosspieces and making ready for the next pontoon and the long timbers

DRILL IN TENT PITCHING

essed that he was glad he lost. It had that which art cannot supply—feeling. There was a heartbeat in every word and every gesture.

No one at this meeting seemed so old that he had lost the West Point, or, what might better be called the Thayer, bearing. The man who has impressed himself most upon the American army is not Washington or Grant, but one whose name is scarcely known to the general public. There is a statue in marble to that stern disciplinarian, Sylvanus Thayer, overlooking the parade ground; every cadet and every graduate is a statue to him in flesh.

Washington conceived the idea of the Academy, but Thayer was the author of its system. Washington from organizing and

PITCHING SHELTER TENTS

THE TENTS PITCHED

officering an army out of rawboned volunteers realized, as no legislator could, that war is a profession by itself. He and his friends fought for the bill establishing it until finally after his death, in 1802, it was made a law. "Whatever argument may be drawn from particular examples," he had said, "a thorough examination of the subject will evince that the art of war is at once comprehensive and complicated and that the possession of it in the most improved and perfect state is always of great moment to the security of a nation." The wisdom of his words needs no better illustration than the fact that many of the Academy's graduates have fought in two great wars and the advice of one general, at least, was solicited in a third.

After the Revolution the public was as confident that we should never have another war as it was after 1812 and after the Mexican War. Those pessimists who are forever holding up the single-minded statesmanship of our forefathers to the disadvantage of the statesmanship of today, will do well to read the early history of that institution which, with Annapolis, forms the bulwark of the nation's defence. For the first eight years of the Academy's existence there was no examination of candidates, either physical or mental, the Congressman's appointee being accepted without question. There was no

"PLUNDER"

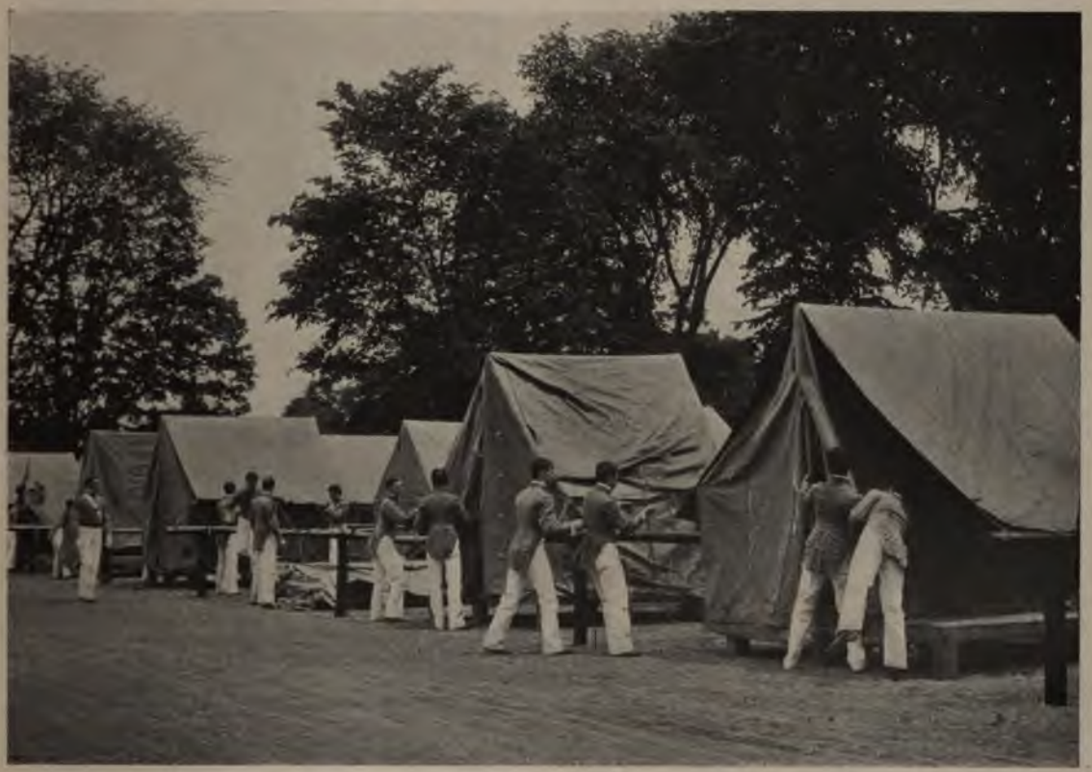
MAKING CAMP—TENT RAISING

set number of students. They varied in ages from twelve to thirty-four years. Some were married and brought their wives with them; some were graduated in six months, others in as many years. As late as 1817 there had been little change in methods.

The Academy needed a *man* to save it from being the laughing stock of the nations, and the man was forthcoming. In July, 1817, Captain Sylvanus Thayer was appointed superintendent. His career fitted him to be at the head of an American military academy. He worked his way through Dartmouth College, being graduated at the head of his class. He entered the engineer corps of the army and distinguished himself in the second war with the British. Afterward, he traveled abroad, adding to his knowledge as a scholar. By temperament, learning, observation and experience he was fitted for his place. Fearlessly and without hesitation he attacked the evils of West Point at the root with broadsword blows.

All that he did would have been impossible if he had not had a man back of *him*. For the first eight years of his term John C. Calhoun was Secretary of War. Calhoun seems to have been something the same sort of Cabinet officer as Elihu Root. He chose the

IN CAMP
Putting up the tents



MAKING CAMP
All tents go up at a word of command

MOVING INTO CAMP

THE FIRST DAY IN CAMP
Going to housekeeping

man most suited to the work in hand and then stood by him. Moreover, Thayer was not of the kind that would remain long at the head of a school where he was master only in name. One can imagine what a clamor his first act of holding examinations and summarily discharging the increment of idle, vicious and incompetent students raised in the lobby of the Secretary of War. One can also imagine the manner in which Secretary Calhoun received the relatives and friends of the aggrieved cadets.

"Superintendent Thayer immediately organized the cadets into two companies, officered by members of their own body," a historian tells us, "with a colonel having his own adjutant and sergeant-major; appointed an officer of the army as commandant of cadets; transacted business with the members of his command only at office hours; classified all cadets according to their proficiency in their studies; divided classes into small sections for more thorough instruction; ordered weekly class reports showing the daily progress of students according to a scale of marks;

FLIRTATION WALK

TROPHY POINT

A RAPID FIRE GUN IN ACTION

HEAVY ARTILLERY DRILL

required more thorough recitations by a freer use of the blackboard; improved the curriculum; organized a proper academic board with the superintendent at its head; introduced a check-book system to curtail the expenses of cadets, some of them being deeply in debt; reduced the expense of educating pupils to one-half that of Woolwich. The officer of the day dined with him daily, so that he learned all that was passing in the barracks. Permits were necessary for almost everything, even to get a letter from the post-office. Such constant intercourse enabled him to get a knowledge of the character and habits of each cadet."

I dwell much upon Captain Thayer because the West Point which he left by resignation in 1833 is the West Point of today. No educational institution in America bears so thoroughly the imprint of one man. Others have established colleges; he fathered a new system of military education. The regime

A GATLING GUN IN ACTION WITH SMOKELESS POWDER IN A SHAM BATTLE

LOADING A MULE PACK TRAIN

unchanged and the only additional requirement for admission up to Secretary Root's administration was greater knowledge of geography and United States history. Thayer showed his great breadth of mind for his day, when we still looked to England for educational examples, in that he did not imitate Woolwich. The war in South Africa has shown too well the folly of making the military profession the diversion of a man of leisure.

I recall asking a foreign officer what he considered to be the American officer's most pronounced characteristic. "Attention to

PRESIDENT ROOSEVELT AND COLONEL MILLS REVIEWING THE PARADE OF THE CADET BATTALION

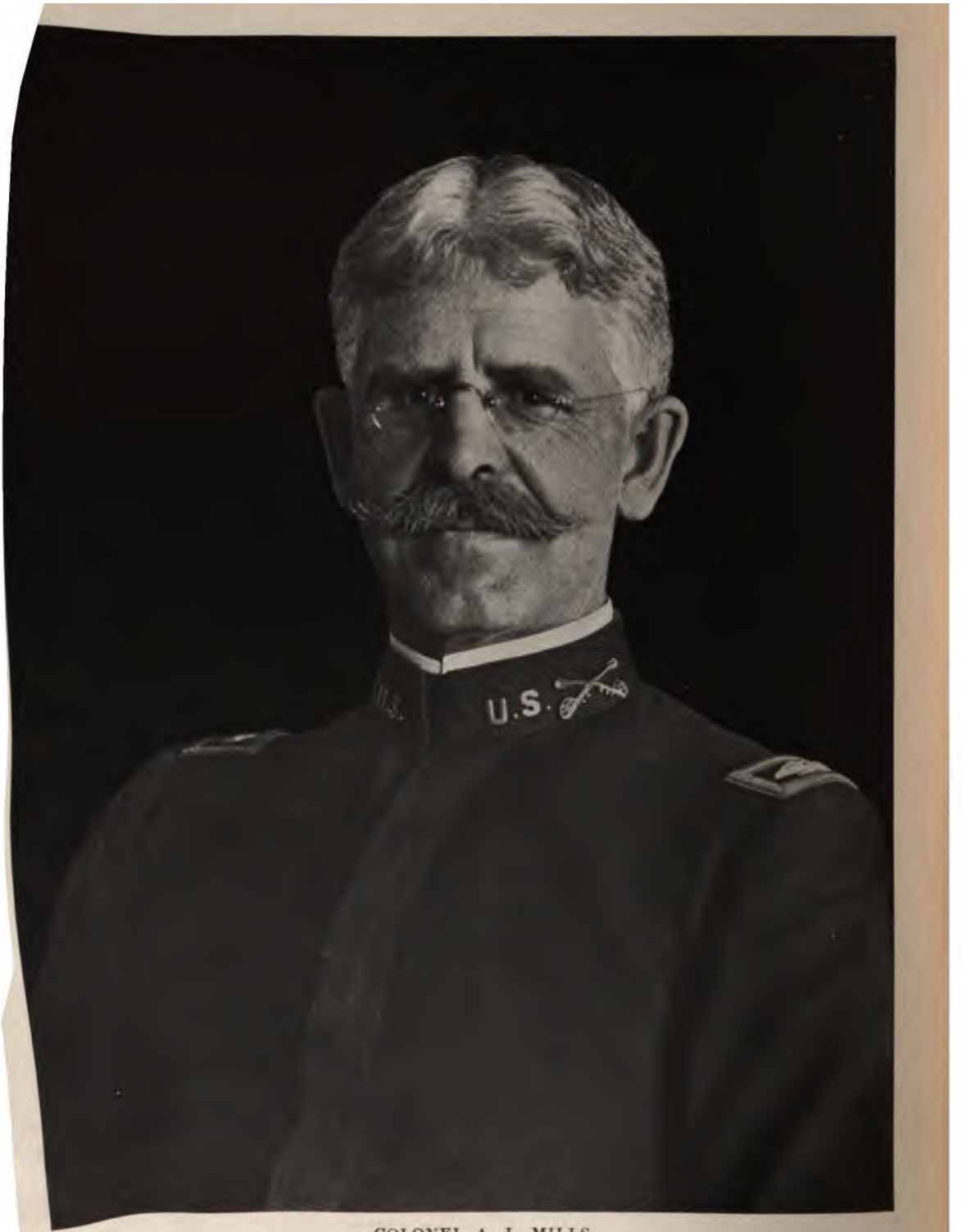
THE REVIEW FOR THE PRESIDENT

duty," was the reply, which was a tribute to West Point.

Thoroughness is the great aim of the Academy. Discipline is its all-necessary adjunct. There is no room for the man who slips through in the ways too well known in every college for mention. The system puts its finger on the weak spot of a cadet with the practised hand of medical diagnosis. The blackboard method of recitation was used for the first time in the United States at West Point. Instruction is given in sections of ten men or less. Of these, all save one are sent to the board and take an enunciation or a problem while he stands before the instructor answering a fusillade of questions. Before the class

THE MULE AMMUNITION CARRIERS OF A MOUNTAIN BATTERY

The mules quietly grazed within thirty feet of the place where the guns were firing



COLONEL A. L. MILLS

Superintendent of the United States Military Academy

leaves the room every member has been under fire and the instructor can competently judge how much each student knows and how thoroughly he knows it.

There is no attempt to cram many different studies into the brain coincidentally. Two studies at a time are considered enough. Day by day every cadet knows just where he and every other cadet stands in every study. The ambition and rivalry thus excited, as well as the odium of being "found," are powerful incentives. He sees that work alone brings results, just as it will in later years when he is an officer. The system of demerits applies to the length of a man's hair and the polish on his buttons as well as to his progress in mathematics. A cadet's whole day is one battle against demerits, from the time he arises at 5:30 until he is in bed at 10. He can easily record enough marks in twenty-four hours to take his uniform off his back. Every mark has the precise object of making a mind, a disposition and a physique best suited to an officer.

The outsider, and especially a cadet's mother, may well think that there is not enough leniency for a boy's lapses; but men who hold in trust the lives of companies, regiments, brigades and armies are not supposed to have lapses, particularly in action. Again, we hear that the system is so rigorous that it breaks down the health of the students. Perhaps it would if the cadet were allowed, after the day's work, to inhale cigarette smoke and hang over a beer mug until the small hours of the morning. With such an auxiliary, an elective course of lectures has been known to undermine more than one university man's constitution. No college or preparatory school can show such a healthy looking set of boys as West Point. The physical regime clears their heads for an amount of mental work impossible under other conditions. They not only obtain more instruction in four years than they could elsewhere, but from raw youths they have become accomplished gymnasts, swordsmen, horsemen and artillerists, infantrymen and engineers. If that veteran, wounded in two wars, General Longstreet, is a sample of the physical "wrecks" which West Point produces, we cannot have too many of them.

Another criticism is that West Point sinks the cadet's individuality into a machine, which it does temporarily, as it should. It is a school for producing soldiers, not artists, and it was a good thing for James McNeil Whistler that he was "found" in chemistry. Action and decision are the keynotes of soldiering, and action and decision are the products of the Academy's system. There is no time for lolling. There is always something to do and it must be done quickly. Upon graduation the cadet has the habit of obedience, of order, of promptness, of thoroughness, of always knowing his own mind, and he has the proper groundwork to develop individuality—the very same groundwork that Grant and Sherman had.

Once an officer the cadet may continue to learn or he may just keep step and assure himself of poor assignments for his old age; for until the day of his retirement his record is kept in the War Department. We do not follow the plan of certain foreign nations and keep an officer in a stiff collar and on stilts all his life. Our army, as every army must be, is a machine; but we recognize that it is a human machine, composed of human units that salute all along the line from the private to the President, its commander-in-chief, with a heartiness that does not belong to a wooden drill. Since the Spanish-American and the South-African wars, foreigners no longer scoff at the individual initiative of our officers and men, who represent a school which is now recognized as the school of the future. The tribute of General Wolseley is really a tribute to Sylvanus Thayer's system. In his letter of congratulation on the Academy's anniversary he called the American army "the foremost in the world."

There is no boy in the land so poor that he cannot go to the Academy. The Government literally receives the candidate naked, and clothes and feeds while educating him and then gives him a commission in the army. From the day he has passed his examination he is self-supporting. He need not receive any funds from home, and, in fact, his instructors prefer that he should not. If he has a single cent on his person upon his arrival, it is put on the credit side of his account in the quartermaster's office, along with the $45 a month which the Government allows him. Any outside remittances thereafter must also be turned in. Little by little a sum is deducted toward buying him an equipment for

raduation. He can buy nothing from the uartermaster without official permission. 'hat teaches him that one of the first duties f an officer is to live within his income and lso to be businesslike in his official accounts; or it is only when an officer is not businesslike that he gets tangled in the red tape which s as necessary in an army as a ledger in a bank.

No rich man's son has the time or the opportunity to cut a dash at the Point. The corps is an extreme democracy which knows no inequalities except those of rank and demerits from the time that the plebe sheds his "cit" clothes and puts on a ready-made uniform of grey, which, in turn, he doffs as soon as the tailor has one made to order for him. But this he cannot wear until a board of officers has decided that it fits him. And how it does fit! You still lean to the corset theory until you see the cadets in the gymnasium and find that the corsets are of the kind whose steels do not rust.

Hazing by tabasco sauce and other severe methods is a thing of the past. Hazing of a milder kind is not and never will be, let us hope. A battle is not a tea-party, and, the prime object of West Point being to make soldiers, the first requirement of a "plebe," to put it bluntly, is that he should be "weaned." In more than one instance, where the demerit system failed, the solicitude of his fellows has saved the army from an officer who, however much of a credit he might be to some other, was not by disposition fitted for the military profession. There is the leader of the first class and the bottom man in the fourth class, and each must know his place and do his work zealously and ungrudgingly, leaving his reward to his superiors and not to intrigue; just as he must do it in the army if the army is to be efficient.

The boy who brought all the notices from the home paper to show how smart was this village prodigy had to learn them by heart and repeat them throughout his first year just to reassure the poor, benighted upper classmen that they were in the presence of greatness. That good fellow can laugh today with his tormentors over the incident and thank them for lifting him out of provincialism into the wide camaraderie of serving one's country unpretentiously and not "talking about it," which is the one thing that the service never does.

The "plebe's" origin has nothing to do with the case, except that distinguished origin is an exceptionally inviting mark. The son of a famous general—young Grant, Sheridan and McArthur, at present cadets, can testify to this—will be required to explain at length why he is a greater man than his father and the son of a millionaire to explain why he ought to do his drill with a carriage and pair. Behind this there is the principle that no one at the Point is any bigger than his merit marks and no amount of merit marks permit him to give himself airs, if for no other reason than that (as is always the case in the army) there is somebody above him.

In fact, the custom is a most thorough expression of that national sentiment and method which judge a man by what he is. There is no jealousy of the classmate who rises by merit. At the mention at the alumni meeting of the name of Brigadier-General Franklin Bell, a first-lieutenant of cavalry at the outset of the Spanish War, men who had once ranked him cheered with a whole heart They knew the man and knew that he had worthily won his star. The most unpopular brigadiership of recent times was not that of either Wood or Funston, non-graduates, but of a graduate who was honored for a name and not for the work he had done. Work! That is the gospel of West Point.

Once he is through the four years' drill, the cadet's pride in it begins and grows from year to year, until it is a memory more precious than all his honors. At eighty it surpasses description by an outsider, who can only refer you to General Longstreet and others. The alumni, as is the custom at commencement time, slept in the cadet quarters, each sharing his old room with his old mate where possible. At 2. A M., when one who was past seventy was still playing boyish pranks, he was asked by a younger man if he did not intend to take any sleep.

"Sleep!" he replied, "sleep *now?* I'll have time enough to sleep during West Point's next centennial."

There is a cause for West Point to rejoice over more than the lapse of a hundred years of existence. Its anniversary also celebrates, for one thing, the establishment of the War College, which is a supplement to the Academy of the same kind as a post-graduate course to

a physician who intends to become a specialist; for another thing, the appropriation of $6,500,000 for new buildings and improvements which have long been needed.

No investment has brought the nation better returns for the money it has spent than the Academy. General Scott said that had it not been for the West Point graduates the Mexican War would have lasted four or five years longer. In the Civil War all the great commanders and most of the important commanders were West Pointers. Men with a natural talent for war may be "found" at the Academy, but history proves that many more pass. The roll of those who have left the army and have risen to high places in civil life compares favorably with that of any other college and proves that if there is never another war we cannot have too many West Point graduates. It is worth the effort to be an alumnus of the same institution as Grant, Lee, Sherman, Sheridan, Jackson, Hancock, Humphreys, Sedgwick and McPherson.

Through a century,—or, to be exact, since Thayer's time,—the chosen officers of the army as instructors have guarded the Academy's system from the meddling attacks of those who would offer change under the guise of reform. When the present system is vitiated and influence or wealth counts in place of work, something will be wrong with the American home and it will be high time for the nation to look to itself.

WILL OUR COMMERCIAL EXPANSION CONTINUE?

AN EXAMINATION IN DETAIL OF ITS CAUSES — UPON WHAT IT DEPENDS—ITS SUBSTANTIAL AND NECESSARY CHARACTER—WHY OTHER NATIONS MUST BUY OF US

BY

O. P. AUSTIN

CHIEF OF THE BUREAU OF STATISTICS OF THE UNITED STATES TREASURY DEPARTMENT

IS the commercial supremacy of the United States to continue? Is the growth in our exports likely to be sustained? Does the loss of about a hundred millions in exports or an increase of nearly a hundred millions in imports, which are shown by the record of commerce of the fiscal year ending June 30, 1902, indicate that the limit has been reached in exports and that imports are likely to overtake exports and to exceed them, as is the case with most European countries?

These are important questions, vital questions, in fact, since we have only lately become the greatest exporting nation in the world, and our excess of exports over imports, or "favorable balance of trade," is greater than that of any other nation. Of the thirty principal nations of the world, only a dozen show an excess of exports over imports; and of this dozen the United States not only stands at the head but the excess is greater than that of all the other eleven countries of that group combined. The twelve countries showing a favorable "balance of trade" are: Argentina, Australia, Brazil, Canada, Chili, Egypt, India, Mexico, Roumania, Russia, Uruguay, and the United States, and the "favorable balance" of all the other eleven combined is not as great as that of the United States alone. It is worth while, therefore, in view of the year's reduction in exports and increase in imports, to try to determine what the future has in store for our commerce.

The causes of our wonderful development are not difficult to find. In 1869 the great transcontinental railway was completed, and in the years which followed the lateral lines were constructed. In 1869 the number of miles of railway in operation in the United States was but 46,844. By 1900 they had

more than quadrupled. The effect of this increase in the power to transport natural products to the markets of the world was enormously to increase the agricultural productions of the country. Corn production had never reached one billion bushels prior to 1869; now it is more than two billions of bushels per year and wheat production has practically doubled. Cotton production had seldom reached four million bales; now it ranges from ten to eleven millions. Wool production averaged about 150 million pounds annually; now it is over 300 million pounds.

In minerals the increase has been still more rapid. Production of pig iron has grown from less than two million to more than fifteen million tons, steel from less than one hundred thousand to over thirteen million tons, and coal from thirty-eight million short tons to two hundred and ninety-two million tons. Rail transportation rates from Chicago to New York have fallen from thirty-three cents per bushel of wheat to ten cents per bushel and in somewhat similar proportions on other articles. At the same time our mines of precious metals have poured forth their treasures, and the money in circulation in the country has grown from $675,000,000 to $2,260,000,000, and from $17.50 per capita to $28.66 per capita. The effect of these conditions upon manufacturing has been phenomenal. The number of persons engaged in manufacturing has grown from 2,000,000 in 1870 to over 5,500,000; their earnings from $775,000,000 to $2,735,000,000; the capital employed, from a little over $2,000,000,000 to about $10,000,000,000, and the value of manufactures produced from $4,250,000,000 to $13,000,000,000. All this, let it be remembered, has happened in a short period of thirty years while the population was increasing 100 per cent.

Not only has the total of exports increased enormously, but the individual power of production in excess of home requirements has also increased, the per capita of exports having increased from $7.29 in 1869 to $18.81 in 1901. The exportation of agricultural products has increased from $293,000,000 in 1870 to $943,000,000, and that of manufactures from $55,000,000 to $412,000,000.

The effect on our rank as an exporting nation has been to advance the United States from fourth place in the list of exporting nations in 1870 to the head of the list. In 1870 England, Germany and France exceeded us. Since 1870 the increase by the United States has been nearly as much as that of France, Germany and the United Kingdom combined, and our exportation of domestic products now exceeds that of any other nation.

The wonderful growth in exports can better be presented to the eye and mind simultaneously by the accompanying simple table.

IMPORTS AND EXPORTS OF THE UNITED STATES AT SELECTED YEARS, 1869 TO 1902.

Year.	Imports.	Exports.	Excess of Imports.	Excess of Exports.
	Millions of Dollars.	Millions of Dollars.	Millions of Dollars.	Millions of Dollars.
1869	417.5	286.1	131.4	.....
1870	435.9	392.7	43.2	.....
1871	529.2	442.8	77.4	.....
1873	642.1	522.4	119.7	.....
1877	451.3	602.4	.....	151.1
1879	445.7	710.4	.....	264.7
1880	667.9	835.6	.....	167.7
1881	642.6	902.3	.....	259.7
1892	827.4	1,030.2	.....	202.8
1898	616.0	1,231.4	.....	615.4
1900	849.9	1,394.4	.....	544.5
1901	823.1	1,487.7	.....	664.6

While the causes of the wonderful increase in our production are thus easily determined, it is of equal importance to inquire as to the causes which have given us a steady and profitable market abroad and try to learn whether that market is to continue. People of other countries do not buy of us as a matter of courtesy or of personal friendship. They only buy what they require and they buy wherever they can obtain what they require most advantageously. The principal requirements of man can be enumerated upon the fingers of one hand, viz.: food, clothing, heat, light, and manufactures. Of all these the United States is the world's greatest producer. The principal articles of food are breadstuffs and meats. For breadstuffs we produce more wheat than any other country in the world, and more corn than all other countries of the world combined. For meat the chief supply is beef and pork, and of each of these we produce more than any other country of the world. For clothing the quantity of cotton required by the world far exceeds that of any other material of dress, and of this the United States produces not only more than any other country, but three-

fourths of the world's entire supply. For heating, the chief requirement is coal, and of this we now produce more than any other country and at a cost far below that in any other coal-producing section. For lighting, petroleum is now the world's chief reliance, and we produce more of this article than any other country, and of a much higher grade for lighting purposes. Of manufactures the United States is the world's largest producer. The chief requirements of manufacturing are iron, steel, copper, lead, aluminum, cotton, leather, and wood; and of all these we are the world's largest producer. As a result the United States easily leads the world both in the quantity and value of the manufactures produced, while the fact that we have more of the raw materials at hand, coupled with our cheap coal and ingenious machinery, gives us a great advantage in the cost of production. The value of the manufactures of the United States is now nearly double that of the United Kingdom, and about equal to that of Germany, France and Russia combined. Thus, in the five great requirements of man, food, clothing, heat, light and manufactures, the United States is the largest producer of their component factors; and as the world is to continue demanding these articles indefinitely, we may assume that the market is likely to continue, and that the question whether we shall sell our products in that market depends largely upon ourselves.

But to turn the natural products of the fields and forests and mines into marketable form and to transport them to that market requires certain other qualities which are nearly as important as the five great products already enumerated. These necessary qualities to assure successful handling between the point of production and place of sale may be counted on the fingers of the other hand. They are invention, communication, transportation, finance, and energy. Of all these it may be said that the United States has a greater supply than any other nation. While our natural factors of production are very great, it will be conceded that their value has been multiplied by the genius of the American inventor. It is to the invention of the steam plow, the self-binder, the steam thresher, the cotton-gin, and numerous other devices for performing by machinery that which was formerly accomplished by hand labor, that our agriculturists have brought themselves to the foremost place. It was the American inventor who gave us the telegraph and the telephone. The activity of the American inventor is shown by the fact that the number of patents issued in the United States since 1870 is one-half as great as those issued in all the rest of the world during that period. Power of communication is another factor of equal importance, and in this the United States leads. We have more miles of railway than all of Europe put together, six times as many miles as any other country, and two-fifths of the mileage of the world. We have twice as many miles of telegraph as any other country. In the number of telephone messages sent the United States surpasses the total for all Europe combined. Of post-offices we have twice as many as any other country. The number of pieces of mail handled in the United States is greater than in all of continental Europe; while of newspapers, we have twice as many as any other country and more than one-third of those of the entire world. In transportation we easily lead. In river and lake transportation by steam vessels, our facilities are far greater than those of any other country, and our freight rates have been steadily lowered until they are now about one-third those of 1870 and are lower than in any other country.

In money metals, another extremely important factor in the development and maintenance of production and commerce, the United States also leads. We produce more of these metals than any other country. There have been years in which Australia and South Africa have slightly exceeded the United States in gold production, and other years in which Mexico has slightly surpassed us in the production of silver; but in the combined production of gold and silver no country equals the United States. As a result of this and of our favorable balance of trade, the United States now has more gold and a greater total of money in circulation than any other country. Experts also estimate that somewhat indefinite term "banking power" as being greater in the United States than in any other country, while their estimates of total national wealth also place the United States at the head of the list of nations.

The next feature in our claim to special advantages in production and commerce is

that of energy. This is a product not easily measured; but when it is remembered that the population of the United States is formed by a combination of selected energy from the whole world, we may lay claim to a greater average supply of that important factor than any other country. The energy and determination which prompted the early settlers of America to leave their firesides and friends in Europe and to undergo the hardships and dangers of establishing homes for themselves in the New World surely mark them as above the average in the possession of this characteristic, and this is also true of a large share of the twenty millions of people who have come to us from other countries during the past century. Not only have they made valuable citizens and aided in the wonderful development just outlined, but their intermingled blood flows in the veins of a large share of the present population and with it an energy which, when guided and vitalized by the work of our educational system, must tell for the future prosperity of the country.

What is the conclusion then from this review of the conditions at home and abroad? It would seem that there is but one answer. Given—

(1). A country which produces more of all the great requirements of man than any other country;

(2). Unlimited power to transform the natural products into condition for consumption and to transport them to market;

(3). A market whose requirements are constantly increasing;—

and it would appear that the prosperity of our export trade must continue indefinitely unless it be checked by some unwise course at home or unforeseen circumstances abroad.

True, we hear threats of the exclusion of our products by certain countries and rumors of European combinations against the United States; but neither past experience nor the logic of the situation seems to justify the belief that this will be realized. For years we have heard of legislation by European countries against American meats, yet our exports of provisions have steadily increased and were fifty per cent. greater in 1901 than in 1890; and this year they will be the largest in the history of our foreign commerce; and eighty per cent. of our provisions go to Europe. We hear from time to time that certain countries have made laws or rulings adverse to certain of our products, yet the total of our exports to those very countries continues steadily to increase. We have heard in recent years of the prospective boycott of American manufactures by European countries, yet more than one-half of our exports of manufactures last year were sent to Europe, the greatest manufacturing centre of the world. A few years ago a dozen countries simultaneously protested against a pending tariff measure, yet that measure was enacted without reference to those protests, and today every one of those countries is taking more of our products than they had ever done prior to that protest.

The one remaining question, then, in determining the prospective growth of our exports is whether or not the markets of the world seem likely to remain open to us. There seems no reason to doubt that our supply of surplus products will continue, that the enterprise which has produced that surplus will increase rather than decrease, and that the markets will also continue to exist and to develop in number and requirements. Is there any danger, then, that we shall be excluded from them or that our persistence in refusing to buy as much as we sell is going so to disarrange national balances as to destroy those markets? These are assertions that have been and still are heard.

It is not to be expected, of course, that the millions of actual purchasers are likely to enter into combinations against American products or manufactures. But are their Governments likely to do so? Let us reflect for a moment as to what would be the result of such action. The United States produces one-fifth of the wheat of the world, one-half of the meats which enter into international commerce, three-fourths of its corn, and three-fourths of its cotton. Of all these Europe must import large quantities. What would be the effect of a refusal by Europe to purchase our wheat, or our corn, or meat, or cotton? It would be the exclusion from the world's principal markets of three-fifths of its present importation of wheat, one-half of its importation of meats, three-fourths of its importation of cotton, and nearly all of its present importation of corn. During six years since 1895 we have heard

much talk of European exclusion of our manufactures, but our exports of manufactures to Europe alone in 1901 were more than those to the entire world in 1895.

The people of the United States have been solemnly informed from time to time and with great persistence and reiteration that if we persist in refusing to redistribute to the world the money which we receive for our products we shall finally so disturb the world's currency balances as to produce some awful financial cataclysm, and so destroy the markets in which we now sell our products. But up to this time we see no indication that this is happening as a result of twenty-five years. In that time we have sold five billion dollars' worth of our products in excess of what we have bought. But if the United States really appropriated to itself an undue share of the world's money by selling merchandise valued at five billions in excess of its purchases from 1874 to 1901, how is it that the other nations of the world have generally increased their circulating medium and their wealth meantime, and so increased their power to purchase our surplus products?

NEW YORK TO CHICAGO—20 HOURS

A DESCRIPTION OF A TRIP ON THE NEW TRAINS THAT MAKE THE FASTEST LONG RUN IN THE WORLD — A MAN FROM ONE CITY MAY DO BUSINESS IN THE OTHER AND BE GONE ONLY ONE DAY

BY

RUSSELL DOUBLEDAY

(AUTHOR OF "A YEAR IN A YAWL," ETC.)

(Illustrated from photographs by the author and others)

[The announcement that two railroads were to run twenty-hour trains between New York and Chicago excited no great surprise. Little that American railroads achieve surprises the public. Progress is taken as a matter of course. A few years ago it was asserted seriously that greater sustained speed than forty- miles an hour could not be attained. Since then the conditions which fifteen years ago made higher speed impossible have been greatly changed: steel rails, heavier and stronger, have been substituted for iron: roadbeds have been leveled and ballasted until they are solid and smooth; crooked lines have been straightened; locomotives have been improved until their speed seems unlimited; track tanks have been installed so that water can be supplied while the engines are traveling at full speed; block signals have been introduced that prevent a train from entering any given section of railroad until the track is clear, and show the condition of the succeeding section so that there need be no diminution of speed; heavy cars have been built, sumptuously furnished and so nicely adjusted on their springs that the passengers may rest comfortably while traveling swiftly. These are a few of the many improvements that make the twenty-hour train mechanically and commercially possible. And the employees, the engine runners, the dispatchers, the signal men have all progressed with the roads.

For some time both the New York Central and the Pennsylvania roads have been running twenty-four-hour trains between New York and Chicago. The average American is glad to pay more money for the sake of traveling rapidly. Both of these trains, however, cost the business man a day. According to an inter-railroad agreement, these roads that through more favorable natural conditions follow a more direct route to the Western metropolis, were required to charge an extra fare of one dollar per hour saved on the total time of the trip. It was a question whether the traveling public would pay the extra four dollars for the sake of the few hours saved. Four hours cut off the running time means an entire readjustment of the system, the running schedules had to be changed throughout, and in order to allow of the running of the flyer without interruption many of the trains had to be delayed a trifle to make room for it and especially for the extra speed, the most efficient engineers were employed and the best fuel and equipment were set apart for the train. The Twentieth Century Limited and the Pennsylvania Special both leave New York in the early afternoon, permitting half a day's business, and arrive in Chicago in time for the opening of business there; the next day returning the same schedule is followed. By this plan practically an entire day is saved.]

"I'M going to Chicago and I'll be back day after tomorrow morning."

The speaker was traveling across New York on a Twenty-third Street car.

"You mean two days after tomorrow," corrected the enquiring friend.

"No—I leave today at 1:55 o'clock on the

'Pennsylvania Special,' arrive in Chicago at 9:55 tomorrow morning; do three and a half hours' business there and return by the 'Twentieth Century Limited' at 12:30, and if all goes well, arrive at 9:30 in New York ready for another day's work."

The other man knew about the two twenty-hour trains but he hadn't realized what they meant.

"If the trains keep up to the schedules," continued the traveler, taking a grip on his suit case, "by day after tomorrow I shall have traveled 1,900 miles and accomplished three hours' work in Chicago in forty-three and a half hours. Good-bye."

With but a minute to spare he stepped aboard the ferry-boat where his twenty-hour journey really began. In the long depot, arched over by splendid girders of steel, stood the train of four cars, carefully groomed, shining with fresh paint and polished glass

The engineer, grown gray in the service was taking a last look at his engine. Wrench and oil-can in hand he went from wheel to cylinder, from guide bar to bearing, testing, trying valves, peering here and there with practised eye.

"All aboard!" The call was heard above the heavy breathing of the locomotive that had just come in from a swift run, and all the varied noises of a busy station. Slowly and with the dignity that befits one of the two fastest long-distance trains of the world, the train gathered way. Through the great open portal of the depot it passed, out of the subdued light into the sunshiny glare of the open. On every side trainmen stood, timepieces in hand, watching the pride of the road go by and wishing it good luck.

By the time the traveler from New York has found his section and exchanged his stiff hat for a more comfortable cloth cap, the train is half way through the rock-cut of Jersey City heights whose rugged walls are softened with climbing vines. Soon the "Jersey meadows" appeared, covered with green grass rippling wave-like with the breeze. Through Newark the red train passed without stopping. Once well beyond its numerous street crossings the exhaust of the engine sounded more frequently and the train gathered speed.

Within the car the passengers were too interested in watching for speed to read or to smoke. Except that the telegraph poles flew by more and more rapidly there was nothing to indicate that the train was moving fast. It was disappointing, and the traveler turned to his seat-mate with the remark that "We'll never make Chicago in twenty hours at this rate."

When the train reached Trenton and thundered over the Delaware bridge the traveler roused from his reading.

"What! already!" he said under his breath, and began to count the white posts that punctuated the miles of green banks along the rails. A mile in a minute and twenty seconds, another in seventy seconds, a third in sixty seconds, and then after a short slow-down, he counted fifty-five seconds as the post flashed by. An hour and forty-four minutes is the schedule time for Germantown Junction on the outskirts of Philadelphia, eighty-five miles from Jersey City—the red train made it with four minutes to spare and so smoothly that a child walking down the aisle of the car with a glass of water did not spill a drop.

Germantown Junction was the end of the section and the locomotive changed at that point and with it the entire train crew. In less than five minutes the fresh engine was coupled on and the train was off for Harrisburg, the next stop, ignoring Philadelphia.

"They'll do it pretty soon in eighteen hours," said a man across the aisle.

This seemed almost an impertinence, for the traveler was just thinking what a marvelous thing it was to cover 912 miles in twenty hours including stops and many slow-downs. At that rate, he thought to himself, one could travel the distance between New York and San Francisco, 3,250 miles, in seventy-one and a fraction hours, less than three days.

The sleeping car on the flyer had no smoking room and the space usually devoted to that purpose was used for a stateroom, a neat little room furnished in bird's-eye maple with inlay of a darker wood. The traveler went forward into the composite car where he found other men smoking comfortably. The composite car was new to him and he examined it curiously. "This is more like a hotel than a train," he said to himself,—"barber-shop, bath, buffet, smoking-room, and there are books in that case—and a desk with writing materials—a writing-room—all the comforts of home while you travel fifty

"THE PENNSYLVANIA SPECIAL" NEARING GERMANTO

"The exhaust of the engine sounded more frequently and the trai

miles an hour." He stood amused watching the porter serving drinks to one man and cigars to another.

"Pretty convenient, isn't it?" It was the Pullman conductor who was talking.

"Yes, but wh

"Forward of limited trains and there is pl buffet, barber-s

"THE TWENTIETH CENTURY LIMITED"

Speeding a mile in 35 seconds along the Hudson River

TRACK TANKS WHICH SUPPLY WATER TO LOCOMOTIVES WHILE TRAVELING AT FULL SPEED

The tank on the left has just supplied the twenty-hour train while going at 90 miles an hour. Photograph taken from the train

"Well, have a cigar with me—you can smoke it later—and tell me how this business is run." The traveler touched a button back of the wicker leather-cushioned chair where he had seated himself and the porter appeared immediately to supply his wants. "Are you responsible for this whole train?" the New Yorker asked.

"Yes, as far as the arrangements of the cars are concerned," was the answer. "It is my business to see that the passengers have their Pullman tickets, that they are comfortable, that the porters do their duty—this is all under my control except the dining car—it has its own conductor and its own force of waiters and cooks. I have nothing to do with the running of the train or the collection of railroad tickets. That's the railroad conductor's business. He changes with the locomotive at the end of each section of the road—I go clear through to Chicago."

"It must cost something to start a train like this," someone suggested.

"A hundred and fifty thousand dollars, it is said, for the cars alone. And to run it," added the Pullman conductor—"these four cars and locomotive require nineteen men—one for each sleeper, three for the composite car, barber and porter, who also takes care of the buffet, and a baggage master; dining-car requires eight men; beside myself there is the train conductor and two brakemen, a locomotive runner and fireman: nineteen all told."

About the time Harrisburg was reached dinner was ready and the course-dinner of which the traveler partook there was not interrupted in the least by the curves and

OFF FOR THE TWENTY-HOUR RUN

The signals overhead, stretching horizontally, bar other trains from the two sections or "blocks"

A FLEETING GLIMPSE
This picture taken from the "Special" shows a part of the Osage Orange hedge which is planted along the tracks from New York most of the way to Chicago

grades of the beginnings of the Alleghany mountains.

As darkness drew near the grades became heavier and the curves sharper. On this side or that the tree-clad mountains stood almost black against the sky. The Pennsylvania Company are replacing many steel bridges with stone; much vibration and noise is saved and a great gain is made in speed. It was dark when the train passed round the famous horseshoe curve, but as long as the traveler could see to count the mile posts the engineer with the heavy train was climbing the steep grades at a forty to fifty miles an hour gait.

During the night when most of the passengers had sought their berths or state-rooms there was a long delay caused by a freight wreck. The traveler who was bound to make the trip on time, fretted and fumed, and looked at his watch by the electric light that he turned on at the head of his berth—thirty minutes passed before the train really began to go at its old speed.

After breakfast the traveler went back to his own car, which was the last on the train, and for a long time stood on the platform and watched things dwindle down as the train

"IN A FEW SECONDS THE OTHER TRAINS DWINDLED TO BLACK SPECKS AND TRAILS OF SMOKE"
Taken from a twenty-hour train while going 60 miles an hour

sped on. The line was straight as the crow flies and as level as a floor. The shining rails stretched out behind like silver wires stretched taut, meeting in the distance, the stones, spare ties and the inequalities of the ground slipped by so quickly that they made but a deeper blur in the general brown-green tone of the ground. A passenger train going in the opposite direction from the "special," was reduced to a black speck and a trail of smoke almost instantly. The New Yorker rubbed his eyes in astonishment as he began to realize the speed the train was making.

The traveler was so absorbed in watching the speed of the train and the rapid pace of the telegraph poles as they went stalking by, that he failed to notice that the train was well in the midst of the factories, the grain elevators and warehouses of Chicago. He had scarcely time enough to exchange his cap for his straw hat, get brushed and gather his belongings together when the brilliant light of the sun was shut off by the roof of the Chicago station. Then he looked at his watch. "Almost an hour late," he exclaimed.

"Not a bit of it," answered a voice over his shoulder. "Your watch is set for Eastern time, an hour fast. We are four minutes ahead of time in spite of the time lost in Altoona."

By 12:30 of the day after leaving New York the traveler was ready to board the Twentieth Century Limited at the Lake Shore & Michigan Southern depot. On his journey Westward the New Yorker had been much impressed with the remarkable ease and smoothness in the running of the fast train and through an influential railroad man he had secured permission to ride in the engine cab on the first stage of the return journey to Elkhart, Indiana.

Engineer Fish, wrench in hand, was going over his "machine" (which he called her) to make sure that all was fit for the run before him. Standing on the track beside his engine he was dwarfed to insignificance by the great machine he controlled; the driving wheels towered over his head and the great cylinders could almost admit his whole body.

Of a sudden the hissing signal was given, the traveler climbed aboard and sat in the fireman's seat—before him sat the traveling engineer who was coaching the several engineers for this fast run. All was suddenly ready. The throttle was pulled out just a trifle and the reversing lever yanked over a half a foot or so. Without a jar or jerk the train moved off—the engine coughed explosively with a sound of impatience. The fireman standing in the pit of the locomotive opened the furnace door and threw in a shovelful of coal; the flames leaped out to lick the black chunks in.

A multitude of tracks crossed and recrossed in apparent confusion and from the traveler's perch high in the fireman's seat, eight feet from the ground, there seemed to be no order in the chaos of shining rails. Under signal towers whose semaphores raised as they swung by, past railroad men who waved good luck, past puffing engines and long Pullman cars undergoing a process of cleaning and grooming before a run, they went with steadily increasing speed.

The traveler found riding in the locomotive very different from the easy luxury of the Pullmans; the great machine was not so nicely swung on its springs and whenever it crossed over a switch or rounded a curve there was a corresponding jar.

As the houses of the city thinned out the speed was increased, the lever of the throttle was pulled out a notch at a time.

The passenger sat on the fireman's seat with the "traveling engineer" who had an experience of many years on this section of the road as running engineer, knew every curve, every little inequality, each crossing—an expert in locomotive running and as familiar with the track as a man is with the halls of his own house. The running of a fast locomotive is a good deal like the handling of a fast horse, an expert is required to get the highest speed out of either. It requires not only skill but also nerve, and the duty of the "traveling engineer" is to sustain the running engineer in the nerve-trying swift runs and to advise him as to the handling of the engine until he has become accustomed to the swift schedule and can run it almost instinctively on time. The traveler noticed as they flew along that the advising engineer in front of him shouted from time to time across the cab to Fish, "Now let her out," or, "Easy here, that bad crossing ahead," and, "Cut off a bit," and he was intensely interested in watching the difference which, while

not be apparent at all
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rails leaped into view.

They were but eighteen hundred feet long, still the reservoir of the tender was brimming full before half their length was covered, the water being forced up by air pressure and the swift motion.

Half way to Elkhart a steep grade was encountered and a little time was lost but once over the brow of the hill the engine seemed to get her second wind. For several miles the white mile posts slipped by at forty-five second intervals.

When Elkhart and the end of the section was reached four minutes had been saved. He had hardly time enough to bid his friends in the cab good-bye when the locomotive was uncoupled and a fresh one with a new crew backed down. It was a long time before the traveler could hear clearly, so great had been the pounding his ears had received, and it was hours before he was relieved of the tenseness that came from that swift run. He understood now why it was that engineers and firemen had to be changed so frequently. No man could stand for long the strain.

All the afternoon that flying train sped across the States of Indiana and Ohio at undiminished speed. Around the southern shore of Lake Erie across long bridges that spanned the inlets affording all too fleeting glimpses of green islands and sandy shores.

Toledo, Cleveland and Erie were passed in what seemed quick succession though two or more hours elapsed between each.

Just before reaching Buffalo the traveler went to bed. When he awoke, the broad ribbon of the Hudson was streaming alongside. The ride down the Hudson was a delight and the traveler felt real regret when the road turned off to the left and curved round the ship canal along the banks of Spuyten Duyvil Creek and so into the valley of the streets of the great city. "Five minutes ahead of time," said the traveler, watch in hand, as they drew up at the Grand Central station; 980 miles in less than twenty hours, an average speed of forty-nine miles per hour, including stops. The Pennsylvania route, 912 miles, is covered in the same time, but the grades are much heavier and the curves more numerous.

To Chicago and back, 1,900 miles in thirty-nine hours and fifty minutes. Almost two-thirds the width of the continent in a day and two-thirds!

THE NATURE AND THE FIELD OF TRUST COMPANIES

[THE WORLD'S WORK publishes every month an article in which some timely and vital subject of the financial world is taken up]

THE trust company is at once the omnibus and the bugaboo of American financial institutions. In many respects it is like a savings association, in some it resembles a State bank. It enjoys a host of privileges anomalous in themselves and unique in corporate activities. In our peculiarly unwieldy and even undemocratic financial fabric, it steps in wherever it may be needed to supply needs left unfilled by other institutions. Its development in recent years has been marvelous, and during the present year its growth has been most remarkable of all. In the twelve months ending July 1, eighteen trust companies were chartered in the State of New York. The funds entrusted to these companies have grown proportionately, and their dividends have been almost startling.

In fact the banks have been startled. They are beginning to realize that in the trust companies they have a competitor whose strength they cannot accurately judge. The trust company can do anything that a State bank can do, and numerous other things. Its full possibilities have not yet been realized. Yet it is hedged in by but few of the restrictions to which banking institutions proper are subjected. Its taxes are lighter. Its accounts are not open to the searching inquiry of a State or National bank examiner or even a clearing-house committee. It is true that there are certain legal regulations with which technical compliance must be made as to the character of the securities in which trust companies may invest. This is for the protection of the "trust funds" committed to their care. But there are no such limitations as surround savings banks. As a matter of fact, trust companies place their money in the same kind of loans and securities as National banks.

In its original conception, the trust company was designed to serve purely as a fiduciary agent. It was to become a corporate and permanent institution to which might be entrusted the care of estates of minors and incompetents, and in whose hands might be placed the "long time" funds of the community. The principal clause of the laws of the State of New York concerning these companies empowers them to receive "deposits of trust funds." No word is said about the transaction of an ordinary banking business, but such business is not forbidden explicitly and the term "trust funds" is so broad that it has been interpreted to include "short time" as well as "long time" deposits. Thus these companies are now transacting an enormous deposit business. They pay out checks—which they call "drafts"—over their counters just as other banks do. The total cash deposits, subject to check, of New York City trust companies, as reported December 31, 1901, amounted to $440, 718, 602. There were also trust funds held amounting to $352,213,121. The total resources of these companies at that time were reported to be but little less than the total resources of the banks of the city.

It will thus be seen that there is strenuous competition between banks and trust companies. The severity of this competition may be partly realized when it is reflected that, in addition to the other immunities they enjoy, trust companies are not required to keep any specific cash reserve against their deposits. In fact, the reserve held against the nearly $800,000,000 of deposits by New York City trust companies on December 31st last is generally understood to have been less than $1 for every $1,000. In addition, many trust companies offer to pay interest upon daily deposit balances, and in this respect banking institutions suffer a very powerful handicap. Yet these trust companies are compelled by the State to make public only the merest summary of their condition, and that only at

infrequent periods, and they are permitted to enjoy the privileges of the clearing-house just as other non-member banks are.

It is but natural, therefore, that banks should rebel against this invasion of their business. The situation is a most serious one, for the New York Clearing House recently adopted a rule to the effect that no trust company less than one year old should be permitted to "clear" through a member of that institution. After attaining that age, every trust company hereafter admitted to these privileges is to be subject to the examination of clearing-house representatives, and it is to submit a weekly statement of its loans, deposits, discounts, reserve, etc., as other banks must. More important than all, such a trust company may be required to keep a specified reserve against its cash deposits, not greater, however, than twenty-five per cent.

This action of the New York Clearing House was but a flag of warning. It would be out of the question to enforce a twenty-five per cent. rule upon trust companies at the present time. The reason is obvious. Finding themselves in possession of tremendous sums of idle money, the trust companies of New York have turned over millions of dollars to great National banks which are willing to pay interest upon large round sums deposited with them. To require a twenty-five per cent. reserve would necessitate the withdrawal of large quantities of these deposits. Banks would be compelled to call in loans. The readjustment which would be necessitated would in its ultimate effects be disastrous.

Now trust companies are spreading to the small places, even to towns that support only one bank each. With trust companies offering two per cent. interest to depositors, it will be seen that a time of cut-throat competition is coming. Several trust companies are being organized to start in small places around New York next winter. It will be of great interest to observe the result.

The problem of effecting a gradual readjustment so that the trust companies may be confined to their proper sphere and yet not be unnecessarily curtailed in their freedom is most difficult and delicate one. They have joyed such immunity from restriction that will be very difficult for them to accommo- e themselves to hard and fast boundary lines. These companies have scorned small transactions. They have reached out for the larger profits, often taking great risks in doing so. Perhaps in time they will be forced to look after the little things.

This suggests the consideration of one of the most anomalous features of American finance —its remoteness from the common people. The ways of American financiers are intensely undemocratic. It is an extremely difficult matter, for example, for a farmer in the South or the West to secure a few hundred dollars loan upon his property without paying very high interest. It is often difficult for him to obtain such loan at all. The farmer may sometimes borrow money upon his expected crop, but he must pay such usurious interest that, as soon as his crop is harvested, he must rush to market with it and sell it at whatever price he can get, whether profitable or not. A new form of trust company has recently been organized in New York to attempt to supply just the need here created. It will have a warehousing company as a subsidiary corporation. Farmers may deposit their oats, their cotton, their corn, or their other products in these warehouses, receive certificates therefor, and upon these certificates as security the trust company will lend money at current rates for legitimate loans in the financial centres. This new company expects to confine itself to this form of operation and great relief is expected from it.

But consider the case of the small tradesman. How difficult it is for him to secure a small loan or financial support for the humble enterprise into which he is willing to throw his life and to risk his all. The large trust companies and the banks will often have no dealings with him because his business is small. He is respectfully referred to the savings banks and the building associations. But savings banks have very little freedom of action, and building associations afford only limited assistance. The tradesman finds that the trust companies—the concerns most able to assist him—thrust his proposition aside while they enter into an underwriting syndicate for the guaranteeing of the securities of a great corporation on which they may make an enormous profit.

It is different in France and England. The joint-stock banks of London and the Credit Lyonnais and the Societé Generale of Paris

maintain not only great central branches in the leading cities but numerous branches all over the land. They deal as cheerfully and as courteously with a borrower of a few hundred francs or shillings as with one of a hundred thousand.

To conduct a foreign business, banks must establish foreign branches. This may be done under the authority of a mercantile charter, as in the case of the International Banking Corporation. But such a charter confines the company's business within comparatively narrow limits. Now the trust company offers itself as a flexible instrument for just this kind of business. The Guaranty Trust Company of New York has modified its charter so that it may establish branches in other countries. It has located a branch in London, and others are projected in China and the Philippines. But the securities in which the company invests its money are still subject to the State banking department. This department is not entirely friendly to the free growth of a colonial business, and colonial and foreign investments and securities are regarded with suspicion. As a consequence, trust companies organized in New York State and establishing foreign branches are still hedged in by restrictions which hinder the growth of a foreign business.

A trust company has been organized in New Jersey which expects to hold a controlling interest in a chain of National and State banks. Each institution will retain its independence, though the "holding" company will provide harmonious directorates, all subject to the controlling institution. The resources of each of the institutions will be made available for the others. Money will be supplied where it is most needed. It is the idea that this company's capital of $100,000 shall be paid in at the rate of $3,000 for each share of a par value of $100. Another "holding" company is to be organized, to hold a controlling interest in the trust company. This latter "securities" corporation will be capitalized at perhaps $3,000,000, and thirty of its shares will be paid for one of the trust company.

A field for a trust company of an entirely unique character has been created by the peculiarly lax laws concerning industrial combinations of States like New Jersey and Delaware. New Jersey, for example, requires that every corporation chartered under its laws shall have its "principal office" in that State: one of the directors must be a citizen of that State; and the meetings of stockholders must be held in that State. Hence, the "registration" trust company. This corporation registers the charters of new companies. It makes of its own office the "principal office" of the newly-formed concerns. It provides a common meeting room for all the companies it looks after. It pays such taxes and fees as are called for, provides local attorneys who may be consulted with reference to the State corporation laws, and sees to it that all local regulations are complied with. In addition, it furnishes one of its clerks properly guaranteed to serve as a "dummy" director representing the State of New Jersey. A large business of this kind is also done in the State of Delaware, and in Maine and West Virginia.

Most important functions are discharged by the "guarantee" trust companies. All trust companies perform certain "guarantee" services. It is a common transaction to insure the securities of a newly formed or reorganized corporation. It is an easy step to the guaranteeing of the bond of an official in a position of great responsibility. Another step, and the trust company guarantees the title of a plot of land which is purchased.

It will thus be seen that the sphere of the corporate fiduciary agent is very large. The fact that this agency is corporate or impersonal, that its fiduciary nature makes necessary the possession of large discretionary powers, and that the indefiniteness of these powers is apt to lead to grave abuses—these considerations make the solution of the trust company problem unusually difficult. There is a field of undoubted value for the trust company which shall steer clear of the hard and fast lines of the savings bank and yet not invade the field of the National or State banking association. An institution which shall place the "long time" funds of the people at the service of both the rich and poor, which shall provide as great mobility of capital from one part of the nation—and the world—to another as is necessary; an institution which shall fulfil the possibilities for good a fiduciary corporation may be to the public—such is the trust company the future must produce, whose existence laws should make easy and profitable.

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from the headwaters of the great river towards the swamps of the Red River, and while some of the men who go down to work in the swamps come Northward again in the spring, a large majority of the shanty-boatmen expect to stay at the other end of the flood. The boats are therefore of the cheapest possible character, without motive power except sweeps, without paint even, and they begin to rot on the first mile of their long drift. Once in a while the man who means merely to migrate finds much in the free life of the river to commend it, in which case he begins to look to the preservation of his floating home, gives it a coat of paint, furbishes up the interior and looks out for an anchorage. After a while he finds a sheltered spot on the riverside, is joined by others of his kind and presently one of those boat villages, numerous through the Southern States, is formed. He is a picturesque character, this shanty boatman, but while occasionally we hear of some gentleman adventurer with guns and dogs and window-curtained barge floating down by him, his boat is nothing more than the sampan of the Chinaman, a miserable subterfuge for what is desirable in this sanest of all forms of outdoor living.

ONE WAY OF BUILDING A RIVER HOME

THE *Loiterer* was the name of a scow picked up in the Dismal Swamp Canal. A house was built upon the scow which was towed through Pamlico Sound into the Paquemas River where the family lived through one winter "just to try it." The trial so confirmed them in favor of house-boating that the craft was enlarged until she is now 107 feet long, 17 feet wide and capable of housing comfortably the owner and his friends in any blow that ever came over the coastline. Her present name, *Nirodha*, is Hindoo for "rest after action." Her living room is 16 by 12½ feet in size, which gives space, as Mr. Frank A. Eagan, her owner, says, "for the

litter of odds and ends that make of a place a home, not merely a habitation." The owner's stateroom is 12 by 12 feet square and contains a full-size bed. There are bathrooms, six small bedrooms, a dining room, kitchen, laundry, photo dark-room, awnings for shade, small boats for recreation and a total lack of "the tax-gatherer, the rent collector, the landlord, the janitor, the gas man, and the noise maker of every description." Unlike the lot of his Thames confreres the American houseboatman has no water dues to pay. When a change of scene is desired a tug is called and the *Nirodha* is towed away. "But once," as Mr. Eagan points out, "you have brought your boat to anchor, you are amenable to no one but the United States Government and it, thanks to the boat having no motive power, rates the houseboat as a barge and allows you to do what you want with her without a single restriction of any kind, a freedom so absolute that the ordinary land dweller finds it at first difficult to understand and later, when he has grown used to it, more difficult to abandon."

SELF-PROPELLING PLEASURE BOATS

A POWERED boat is just as much in favor. The opinion of the steamboat inspector stationed at New York on this matter is that "as long as you do not use steam and do not carry passengers or freight for hire you may have a houseboat as big as the *Campania* and yet not be required to employ a licensed captain or engineer." This of course lets in gasoline, naptha, kerosene and electricity, gives one the privilege of being one's own captain and engineer and reduces the expense. One of these personally conducted, powered boats is at present summering in Spuyten Duyvil Creek. It is a gasoline boat owned by a retired naval officer who lives upon it with his wife during the greater part of the year. It has been through the Erie Canal to the Buffalo Exposition and through the inland passage to Florida. The question of expense does not affect the owner of this boat although he claims that the obvious inability to entertain saves him over $5,000 a year. It is the perfect freedom which attracts him and the fact that he and his wife are enabled at a moment's notice to throw off the restraint of civilization without offending their friends.

A COASTING SCHOONER TRANSFORMED

THERE are houseboats designed to withstand choppy seas and the most notable of the class is the *Clarina* owned by Mr. Charles Stedman Hanks. Mr. Hanks' experience with houseboats in Florida decided him in favor of a boat that would not be forever doomed to ride in canals and other land-locked waterways. He bought a coasting schooner with plenty of beam, so that of all things he might have plenty of room. The boat is eighty-seven feet long by twenty-four feet wide, so that while she would be denied the inland passage she might well go around the world. Mr. Hanks had her tied to a lumber wharf and a gang of carpenters sent on board of her with certain instructions in the matter of house-building. Speaking in terms of land-lubberdom she has two floors, one resting on the old deck beams, the other eight feet below in the hold. The booms were raised a foot or more and a house seven feet high was built over her aft from the foremast, to contain the living, bed and bathrooms of the owner and his family. The house ends just abaft the mainmast and the deck thereon to the stern makes a capital lounging place. Below this deck is a large dining-room and forward of this room, beneath the big deckhouse just mentioned, are the captain's room, the chart room, a bicycle room, butler's pantry, steward's room, cold storage, servants' bath-room, tank space, galley and forecastle. The rooms are all large and nicely furnished, and Mr. Hanks and his family may live aboard the *Clarina* as comfortably and as cheaply as in any country home. He says they are never cramped for room, the time never hangs heavily on their hands and the freedom is so absolute that all thought of returning to the prosaic life of the past is unendurable. The first cost of such a schooner may be $300 or $3,000 and the remodeling any price from $250 to $5,000. The maintenance will average between two and three dollars per man a week.

HOUSEBOATS THAT GO TO SEA

BUT one may have a powered boat that will go to sea like the *Loudoun* owned by Lewis Nixon, the ship-builder. Unless we except the *Cayman*, a big light-draft steam barge owned by Pierre Lorillard, nothing exists in the houseboat line quite as sumptuous as the *Loudon*. She is a steel steamboat of the yacht type and draws six feet of water. Her house covers her from stem to stern and the roof of the house is utilized as a promenade or lounging deck. The rooms are done in expensive woods and are hung in tapestry that give her interior very much of a grand salon effect. Her cuisine is superintended by a Japanese cook and some world-wide

celebrities have been entertained on board of her. It cost Mr. Nixon $50,000 to build her. Standing in the main drawing-room one would never imagine one's self on a boat, and all suggestion that she is the vehicle of a summer's outing becomes lost. In this sense her elegance is an objection, for if one is constantly confronted by the fear of scratching the furniture, the freedom of the outing is blunted at least.

THE DEVELOPMENT OF THE STEAM YACHT

IT is in fact but a short step from these high-powered, deep-draught, expensively fitted houseboats to the modern powered yacht. The large yacht has the one objection that the cost of its maintenance creates a class distinction. Unlike the houseboat you can neither build nor maintain a yacht cheaply. In the language of one houseboat owner a steam yacht is the most expensive sailors' boarding house on earth. Yet in these days of multi-millionaires this question of cost is not so universally serious as it might be and there is given to the richest steam yacht owner the ability to reach his destination ahead of all other moving things. The modern steam yacht is indeed no loiterer, and its owner is apt to carry his business cares and his secretary out to sea with him. In this, as in houseboats, there is a choice of design to be made, for the types are becoming more and more varied. In one establishment on the Harlem River there are now on the stocks a variety of budding boats reaching all the way from the torpedo type to the blunt-bowed carry-all. Except in distinctly ocean-going yachts there is an effort always made to keep the boats within bounds of the canal locks. This permits of extended tours of the inland waterways. Not everyone knows that one may make a voyage of several thousand miles about the waterways of the United States without once going out in the ocean.

NEW FUEL FOR THE NAVY

NEVER again, in time of war, will a squadron of the United States Navy be compelled to make a long retrogressive movement for the purpose of coaling, nor will colliers and warships roll side by side in a heavy sea at the imminent risk of damage to both: the extensive tests recently made under the direction of Admiral Melville indicate unmistakably that in the near future coal will no longer be the source of energy for the propulsion of Uncle Sam's fighting ships.

to be its worthy successor.

ht and space are considerations of great moment in the economy of a battleship, and in this connection the advantage of compact tanks over the huge coal bunkers now in use is obvious; moreover the necessary shifting of the fuel is greatly simplified when that fuel is in liquid form.

The chief among the objections that have been raised lies in the fact that the heat of the shaft of flame, in direct contact with the walls of the firebox, is so intense that it warps and cracks the iron; but even if some means are not presently devised to render the plates more resistent in this respect, still the replacing of damaged ones will be a simple matter compared with coaling at sea. Even in economy the superiority of oil over coal is indubitable: no other evidence of this is needed than is given by the continued use of the liquid fuel by Pacific steamships and Alaskan freighters.

The comparative tests of the two fuels show various results according to the character of the steam generator; considered pound for pound the greater efficiency of oil is tremendous, but on the other hand it has been found impossible to burn sufficient oil in a small combustion chamber to develop as large an amount of steam as is possible with coal, though in two of the tests in which coal and oil were tried under precisely similar conditions in the same firebox,—both tests being made under forced draught,—there was produced with oil an amount of steam one-third greater than was obtained when coal was used.

In the initial trial of each device the inventor will be required to attach his burner to the test boiler at his own expense, and only the final tests will be made at the expense of the Department; also, from Texas and California offers have been made to supply the oil required for all tests free of cost; for the rest, the Naval Appropriation bill contains an item of $20,000 for this especial purpose.

The greatest American oil fields are so situated that the liquid fuel may readily be piped to the coast wherever this has not already been done, thereby obviating the necessity of storing, while Russia—the only other country possessing extensive tracts of oil lands—will be very seriously handicapped in this respect. With the greatest natural supply of liquid fuel most conveniently located, and the inventive talent of the country bent upon solving the problem of oil-burning most thoroughly, there can be no doubt that on the ships of the United States navy steam may always be produced more quickly and abundantly than on any others in the world.

THE
WORLD'S WORK

SEPTEMBER, 1902

VOLUME IV NUMBER 5

The March of Events

WHEN Mr. Roosevelt came to the Presidency a year ago his friends—men who knew him personally—felt not only that the Executive Department of the Government was in safe and capable hands but that it would be toned up to a degree of energetic efficiency that would be new and wholesome. Everybody knew his activity and fearlessness. But there was a very large section of public opinion that feared his "rashness."

For Mr. Roosevelt throughout his whole public life had been a shining mark for the wags and the cartoonists of the newspapers. He is unusually quick in mind and body. He is energetic beyond the comprehension of most men who hold public office. He is incapable of idleness and impatient of slowness in getting his routine done. And he is fond of adventure. He hunts (and he hunts big game), he rides (and he rides hard), he walks (and he walks fast), and he indulges in all manly sports. He boxes, he rows, he swims, he wrestles. Worse than all—he talks (and he talks right out). Such a man in the glare of the publicity that beats on the White House provokes more gossip about his energy than a dozen obese Presidents. And he was sure to commit mistakes of speech and to violate many small conventionalities.

But there is a difference between energy—especially physical energy—and rashness; and he has never been a rash man in public action. He is by nature one of the most conservative Executives that ever filled high offices. For his mind is not imaginative nor constructive. It works best on the straight line of action. He does not naturally turn to the making of new policies. He is aptest at carrying out old ones. His temperament is executive rather than creative. He is not likely to try new things. He travels faster than other men, but he keeps on well-traveled roads. Such a man brings many things to pass, but he is not rash. By nature he is conservative. Mr. Roosevelt is conservative also by training and by choice. The people now see this distinction between energy and recklessness; and the shallow fear of rashness has disappeared. It got abroad because of a very incomplete knowledge of the man, a knowledge gained chiefly from the frivolous pages of newspapers.

The whole people have now come to know him and to know him well; for he conceals nothing. He lives and works in the public view. It used to be said of President Harrison that when one saw him close at hand he seemed larger than he seemed at a distance; and of President Cleveland that he was much more impressive at a distance than he was close at hand. President Roosevelt is the same, seen near or seen far. Frank, fearless, energetic, a "sturdy gentleman" as President Eliot called him, and never

rash. He has the confidence of the nation and of a larger number of the people, perhaps, than any other President has had in recent times.

To have won the general confidence by a year of routine work is much. But he has done more than this: he has keyed the Executive Department of the Government to a higher pitch of energy than it has shown since it became the vast machine that it is. The Army, the Navy, the Civil Service have a new note of efficiency. Nor has the influence of his energetic temperament stopped there. It has been felt throughout a large part of our political life. This is much to say about the influence of one man exerted for a single year through the routine of official work; but it is not too much to say of Mr. Roosevelt.

THE QUESTION THAT THE PRESIDENT HAS RAISED

THE great question that Mr. Roosevelt has raised in all thoughtful minds is whether the gouty part of his party will get the better of the muscular part. The lines are becoming more and more sharply drawn. The conflict over Cuban relief was small beside the larger contest that it helped to define. The actions begun under the Sherman anti-trust law were incidents beside the larger question that they helped to outline. Nor is the contest between Mr. Roosevelt and the Great Interests new. He was taken away from the Governorship of New York because he was regarded as dangerous to the indulged beneficiaries of loosely drawn and loosely executed tax-laws. If he had been rash, the conflict between him and the Republican Elders would already have become an open conflict. He has shown his shrewdness and his conservatism by quietly forcing the stagnant part of his party to explain itself to the people.

Is the Republican party able to emancipate itself from a servile attitude to High Protection and from self-indulgent inactivity regarding great industrial combinations? This is the main question. Relief for Cuba, reciprocity trade treaties, and bills to regulate trusts are incidental forms that the large difference of temperaments happens to take. Other occasions will present it in other forms.

Roosevelt has the good fortune to stand better tendency. It looks now as if that tendency will win the next Congress and win for him the Presidential nomination next year. But, even if he should be beaten, his defeat would be the most valuable political asset that any man in his party could have.

Taken all in all, then, Mr. Roosevelt has done a very vigorous year's work since he became President; and he has got a keener joy out of the task, perhaps, than any other man that was ever lifted to that laborious eminence. He is probably the happiest citizen of the Republic. The Presidency has subdued and tired every man that ever won it more than it has tired him—unless one must except Old Hickory Jackson.

TRUST LEGISLATION IN VACATION

THE mystery that some of the loudest newspapers have thrown around the President's thought about trusts is manufactured. He has spoken on the subject with his usual directness half a dozen times, and never more plainly than in his Message to Congress. He is not hostile to great organizations, for no clear-thinking man can be. But he sees dangers in the misuse of the power of great organizations, as every clear-thinking man sees. The preventive measure that he has proposed is compulsory publicity by the General Government about the affairs of those trusts that do an interstate business. A law requiring such publicity could be framed that should follow the general purpose of the Interstate Commerce Law, but it would have to be made more effective than this law has been. Compulsory publicity is the President's simple safeguard against the dangers of trusts. It is not a safeguard of his discovery. It would be hard to find out who discovered so obvious a plan. But the best economic thought has been going in this direction ever since the trusts came into prominent attention. The President has done what he could to cause such a law to be enacted, and it is a reasonable inference that he will continue to do what he can. Whether or not his party will show earnestness about it, it is certain that he is in earnest. It will be very difficult to enact such a law, and more difficult still to reduce the tariff on articles that the trusts use or make. This will not be done until a general tariff reduction can be made—a feat that the Republican party is not now morally equal to; nor

Photographed for THE WORLD'S WORK by Frances Benjamin Johnston

VASILI VERESHCHAGIN

THE FAMOUS RUSSIAN PAINTER OF BATTLE SCENES, WHO HAS BEEN MAKING THE WAR OF THE UNITED STATES IN CUBA AND IN THE PHILIPPINES THE SUBJECT OF HIS LATEST WORK. THIS PORTRAIT SHOWS HIM IN HIS CUBAN WORKING COSTUME

does the Democratic party take it in hand with singleness of purpose.

Nor is there mystery about the cases that were brought by the Government against certain combinations. There stood the so-called Sherman Anti-Trust Law on the statute books; and the President sought to enforce it, or to secure punishment for its apparent violation. It is this present anti-trust law that has given Attorney-General Knox the necessity and the occasion to bestir himself and has made him a more prominent figure than the Attorney-General usually becomes. He is likely to have as great an influence as any other man, even though it be indirect, in shaping trust-legislation, if there be any such legislation within a reasonable period. It is far more likely that after the brave campaign talk Congress will reassemble for its short term and fail to find time to do anything.

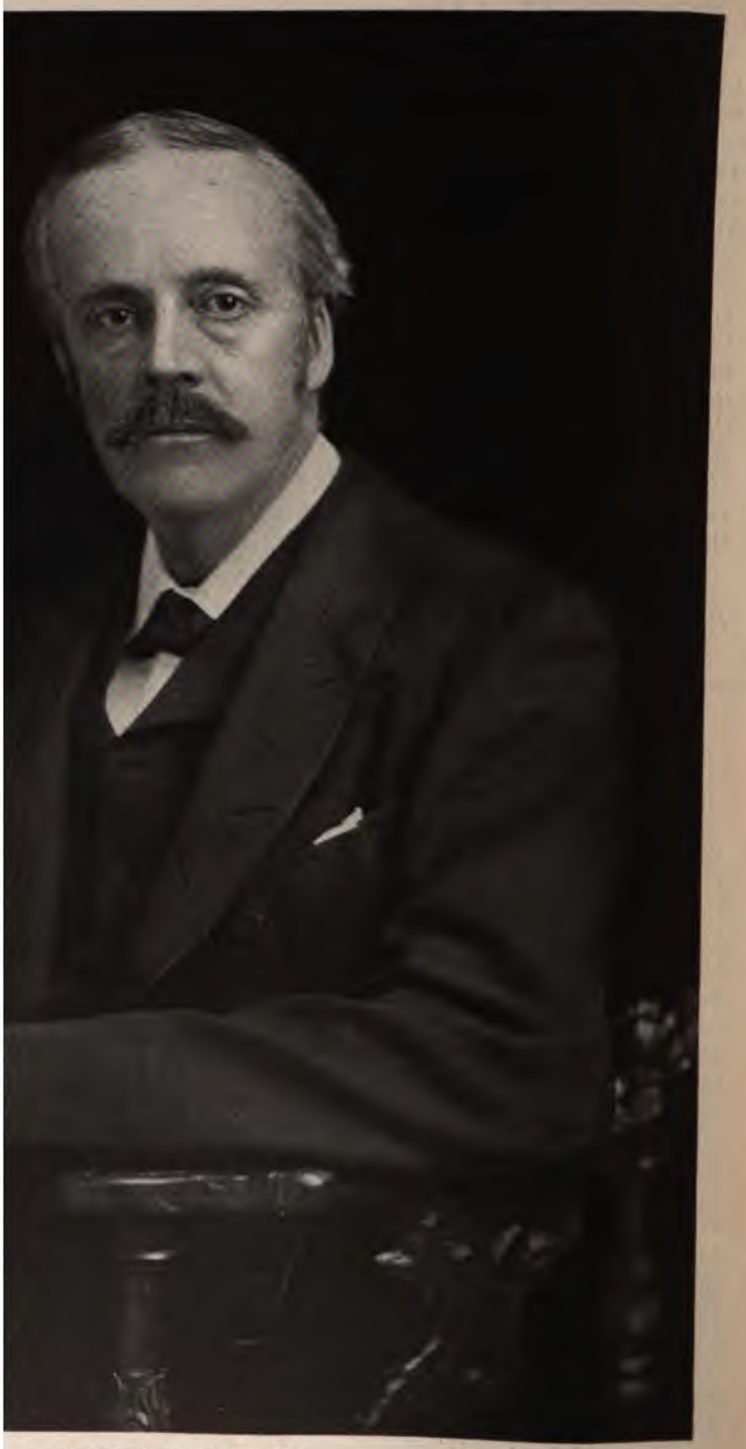
THE WORST CRIME OF CIVILIZATION

THE most heinous crime of civilization is child-labor. It is a sin, not only against all social and economic laws, but against Nature itself. The way whereby man made himself superior to other animals was by lengthening the period of childhood; and a long childhood is the best gift of all the incalculable centuries of our rise above the brutes. The plainest lesson of the natural history of the human race is the protection and the extension of this long period. Yet, in every country where industries have been developed at which children could work, they have been employed till the State has stepped in and forbidden it; and to forbid it has been one of the hardest tasks of the State. In every industrial country, too, men have used child-labor who thought themselves humane, men who were the pillars of society. More than that, in every such country "good" men have defended it. The arguments are as old as industry: "employment is better than idleness" (applied to childhood this is untrue); "the child's earnings are necessary for poor parents" (better the parents should perish than the child); "the family is better off than it was before" (the parents may be, but the child is not); and "it is only a temporary condition till better labor can be trained" (it has never been stopped except by law).

Child-labor is even yet used elsewhere, but its use is now especially scandalous in many cotton mills in the Southern States—in some owned by Southern men and in some owned by Northern men; and the agitation for its abolition is met by precisely the same statements that were made in England and in New England and everywhere else in the world. The repetition of history is fairly startling to the student of industrial conditions.

Louisiana, Tennessee and Kentucky have enacted laws forbidding it; and the recent Democratic State Convention of South Carolina has asked that the Legislature enact such a law. How much it is needed in the Carolinas, Georgia and Alabama may be seen by a conservative estimate that more than 20,000 children less than fourteen years old, including nearly 10,000 less than twelve, are employed in the cotton-mills of these States, some of them at all-night work. Local agitation is the remedy and local agitation is sure to prevail, especially when it is conducted with the vigor and the skill that are used by the Executive Committee on Child Labor in Alabama. Edgar Gardner Murphy of Montgomery, the chairman of this committee, has written in a pamphlet, "The Case against Child-Labor," a document that deserves to become historic by reason both of its substance and its temper. No man can read it and remain inactive. If those who read about it be smitten with activity, they may send to the secretary of this committee at Montgomery, Ala., (P. O. Box 347) for free copies of it and they may send money for its distribution to the treasurer of the committee, S. B. Marks, Jr., at the Merchants' and Planters' National Bank in Montgomery. The preservation of the purest English stock that we have in the United States lies in this direction; philanthropy, too, lies in this direction, and rescue for the helpless.

The day will come when every man who now puts a child of less than twelve to continuous toil will humbly pray God and his fellow-men to forgive him; for they are "good" men who do this colossal crime, blinded by some economic untruth. Yet it is the blackest sin that men in a democracy have ever committed. A democratic society exists for the nurture of men; that is its aim and that is our boast. God help us in this



ARTHUR J. BALFOUR

HE NEW PRIME MINISTER OF ENGLAND

blindness to the very first lesson in all civilization; for our savage ancestors knew better.

A UTOPIA OF BUSINESS PUBLICITY

THE growing sentiment in favor of requiring publicity about the affairs of corporations is so strong that it may be taken for granted that the area of such publicity will spread, sometimes by the compulsion of law, and always by the pressure of opinion, until most important corporations, which owe their existence to public consent, will wholly abandon secrecy. The necessary movement towards publicity has been continuous, if gradual. Banks, railroad companies and great concerns like the United States Steel Corporation and most other companies that have a large number of stockholders have by law or by choice made their condition public, till the time is come when an effort at secrecy by an important corporation is beginning to arouse suspicion, either of larger profits than the public will regard with favor or of an unsound condition. Publicity, therefore, is making for credit and good standing.

Now comes a very striking discussion of the gradual extension of publicity by private corporations and firms. Mr. Alexander Purves in a contribution to the Annals of the American Academy of Political Science on Industrial Partnership foresees the desirability of a general publicity in business for two reasons—for good financial standing and for a good understanding between masters and men. The two forces that press for frankness are good credit and good labor conditions. The industrial and commercial world now has to seek the more or less secret service of the commercial agencies and it has to maintain more or less evasive relations with employees. The question is, Would not a general policy of frank publicity so make for simplicity and fair dealing, and so save time and trouble and friction as to commend it to honest and successful men?

The bare proposition at first causes a certain shock; for secrecy—even a pretended secrecy about things that are not kept secret at all—is yet a part of the conception of men's personal liberty. If you go through the business world of your acquaintance, with an alert sense of humor, you will come across a thousand important facts that everybody knows and acts upon but that are yet veiled with a show of secrecy. Banks know such facts, the commercial agencies know them, all the subscribers to the commercial agencies know them, most persons within a large circle of business acquaintance and activity know them; and yet these very facts are regarded as private. In other words, publicity about business, whether private or corporate, is continually spreading by the sheer pressure of the general commercial organization. It is not wholly a Utopian question, then, that Mr. Purves asks when he says: "Would not the general publishing of figures covering the assets, liabilities and earnings (or losses) place all business upon a firmer foundation? Is the withholding of truth an established virtue and the publication of truth a dangerous experiment?"

THE SOUNDEST WORD ON OUR GRAVEST PROBLEM

ON his eightieth birthday Mr. Abram S. Hewitt was greeted by the leading newspapers and by his friends in every part of the country as the foremost citizen of New York. By clear thinking, by his democratic sympathies with all classes of men, by a successful experience in practical affairs, and by a high civic spirit (for these are the things that bring wisdom) he has won such a distinction.

It was characteristic of the man and of American life in our time that he should say that his chief concern now is to administer the three great trusts that private beneficence has put in his hands (along with others) for the public welfare—Cooper Union in New York City, the Carnegie Institution and the fund of four millions given by Mr. Burke to aid the unfortunate. It is becoming one of the natural functions of men who have themselves shown a large public spirit and sound judgment to become the administrators of great benefactions; and such gifts are becoming numerous enough to demand much of the best of our administrative talent. Their proper management is regarded by Mr. Hewitt and by men like him as a privilege and public duty; and this is a mark of a high civic spirit.

Mr. Hewitt gave out for publication through the New York *Times* an economic explanation of present conditions so hopeful and

well-reasoned that it was itself a great public service. Labor and capital, he feels sure, will work out their own salvation. Great combinations are proving their value and will continue; but public opinion must definitely determine the rights and duties of labor and of capital; and when public opinion reaches such a definite form, the contest will cease by the voluntary action of the combatants. He spoke with especial emphasis about publicity as a preventive of labor troubles, saying:

"It is manifest that the right method of settlement involves publicity as to the profits of business. There is undoubtedly great reluctance and some ground of objection to the disclosure of cost and profits; but as a matter of fact, the transfer of business to large corporations has really made this information public property. Surely, then, there remains no valid reason for denying to the workmen the information necessary to enable them to formulate reasonable demands; and it is to the interest of the owners to give this information, inasmuch as the margin of profit on manufacturing operations is now narrowed down to the smallest limits consistent with a moderate return on the capital employed. There is so much misapprehension on this point in the public mind that I am impelled to say that in the great staples of trade it is exceedingly difficult to get an adequate return for the capital employed, and the business is often conducted for long-continued periods on a basis which insures only wages for labor, without any return whatever for capital. . . .

"The discouraging feature of the time is that the legislative department has shown not merely indifference, but abject cowardice in dealing with the questions which from time to time require the interpretation of the law. What we need is recurrence to the well-settled principles of jurisprudence, a higher order of statesmanship, and the courage on the part of our public men to stand up for the right, although for the the time it may involve the sacrifice of personal popularity.

"The course of procedure is clear. All organizations which avail themselves of the provisions of the law for the creation of corporations should be required to report the result of their business and be open to the inspection and scrutiny of public officers appointed for the purpose. Publicity as to profits and losses would at once remove the most serious cause of strikes, which often take place when it is impossible for the employer to concede the demands of his men, because his profits will not warrant the concession. With proper information, the intelligence of the workmen may be relied upon not to make an issue which can only result in failure."

It may safely be set down that no clearer or sounder reasoning on the gravest problems that confront us has been done by any man within any recent period.

THE SOCIAL TEMPER OF LABOR-UNIONS

MR. PURVES'S main argument, that a frank method of profit-sharing (by a practicable plan that would enable employees to know the exact condition of the business and to share in the profits but not in the management) would remove much of the friction between employers and employees, receives a negative sort of confirmation in the first of Mr. Cunniff's noteworthy articles, which is published in this magazine.

Mr. Cunniff has given himself to a first-hand study of the man who toils with his hands, to ascertain just how labor-organizations work, their theory and their practice and their tendencies, and how the organized American workingman to-day regards society and his place in it. His first article which gives an inside view of certain unions in New York and in Boston makes very plain the general feeling of distrust. These workingmen at least, whatever may be true of others, consider the employer as prey; and the tendency of their thought is to regard society as an organization that is on an essentially unfair basis. Careful students of large social forces will note the report of the great popularity of socialism among the union men of these large cities. It is in these cities, of course, that the relations between those that have and those that toil suffer the severest strain. But for this very reason, a frank understanding of the laborer's point of view is the more important and the more interesting.

By "socialism" these men mean some sort of general government paternalism. Most of them have not thought out a definite programme but they have a general feeling that the rich have got their riches wrongly and that society must in some way make a new division of wealth. Most of the definite

statements that they make are traceable to the writings of Karl Marx.

Now, neither books nor preaching in any other form goes far to eradicate such doctrines. The masses of men learn only by events. Their instruction must be the instruction of just dealing. Still, an interesting problem is presented by this large mass of submerged literature. It may be easy to exaggerate the harm it does, for American life is perhaps a successful antidote. But the number of journals and of books in circulation that may in a general sense be called socialistic is very much larger than the world of book-stores and of news-stands dreams of. And the popularity of this literature suggests an interesting task that nobody seems equal to—the task of so presenting the fundamental facts of democratic society as to win a wide reading by men who read Karl Marx in dilution. It is a task of moral earnestness, of clear thinking and of plain and vigorous writing in good English idiom. A simple, clear, earnest writer, a man who could write as well as Henry George wrote and who should write on the fundamental economic forces of our democracy as they now exert themselves might have an audience such as no book on a similar subject, except "Progress and Poverty," ever reached.

But our economists go on making books for one another and the multitude is no wiser. No man who thinks only in the terms of the "educated class" and who writes only its economic jargon can ever reach the mass of mankind. They cannot even long hold the attention of their own group. It is impossible to "write down" to men or even to children with any effect, and the most pitiful farce in literature is the books that have been so written. Every writer who does not write "up" to his audience—to the very height of his own clearness and earnestness—writes a lie, however accurate his statements may be. Although just deeds count for more in a working world even than good books, if our economists were great and simple enough to write up to the hand-working class, their own class also would then the better understand them and we should soon feel a strong impetus to clear thinking throughout the whole mass of our citizenship.

THE LARGER MEANING OF THE COAL STRIKE

THE coal strike, which so long went on quietly until the violence at Shenandoah, is a deliberate campaign in the miners' war for union-power. It was begun without sharp, specific provocation. Higher wages, shorter hours and other demands were incidental reasons for it. All explanations of it have been pieces of special pleading. It was ordered in the summer when the men could hold out longer than they could hold out in winter and when the public would be most indulgent. There are short and sharp labor conflicts about definite differences; but this is not one of them. There are strikes that are purposely made at the critical period of some piece of work when external reasons may force employers to yield; but this is not one of them. This is one campaign in a long war, and the aim is to win more power for the union.

The miners' convention at Indianapolis made the nature of the contest plain. The soft-coal miners were requested not to strike, because they would violate contracts, but also, and doubtless mainly, because they would cut off their chance to help the hard-coal miners while they are idle; and they were asked for a contribution to the strike fund of $250,000 a week. The strikers can hold out as long as this sum is paid and properly distributed—provided the mine owners do not resume work, or provided acts of violence do not arouse public opinion to assert itself.

To the public at a distance there seems no good reason why the mine-owners might not resume work if they were eager to do so, in spite of the miners. Their eagerness is under suspicion, because they alone can supply a large part of the market for hard coal, and they will keep the market and get the profits in any event. If the indulgent and prosperous public were to throw off its summer mood and demand coal at a reasonable price, the mines would be opened in a week.

But the fact of importance that stands out larger than all the miners' formulated grievances, than all the statements in the mine-owners' explanation, than the easy-going attitude of the public which cared too little about it till acts of violence were committed—the large fact is that a summer-long campaign has been carried on by this large labor union, in a time of prosperity, for the general tactical purpose

of gaining a position of greater union-power. It is a more deliberate and therefore more significant part of the general war between organized labor and organized ownership than a hundred sharply provoked strikes would be. It has a bigger social meaning than many strikes might have that provoked greater violence and aroused public indignation. It is the union against the combination, in a deliberate, well-planned, long contest; and, as always, the easy and busy public pays the cost of the war. The general result is to strengthen the feeling, which is stronger than the careless public may think, that there is something so radically wrong with the management of this great fuel supply that Government regulation or even Government ownership is justified. These mine troubles feed Socialism as coal feeds a furnace.

A POLITICAL WARNING FROM IOWA

THE deliberate re-declaration of a demand for tariff revision, especially as a trust regulative measure, was made by the Iowa State Republican Convention. Coming immediately after the complacent refusal of Congress even to modify the duties on Cuban products, this declaration has served to keep the people mindful of the serious rift in the party. It will make little difference at this Congressional election. But it emphasizes the cowardice of the Republican Congress. Other controversies die by sheer silence. But this will persist alike in silence or under discussion. The legislative branch of the Government is supine. The people will be patient so long as quiet prosperity continues. But the voice of Iowa is a voice of warning.

CAMPAIGN "LITERATURE"

THE Republican party has a good case to present to the voters of the country, and its campaign orators have subjects to discuss that are of great importance and of profound interest. According to custom, the party's Congressional campaign committee (who are men of sense and observe the proprieties of life in other respects) have compiled and published a "campaign-book" for the use of orators and editors. It is a proper custom, and a campaign-book might be made that should serve its purpose a thousandfold better than this and at the same time be exceedingly interesting and even have a historical value. For this is like most of its predecessors—an insult to the intelligence of Republican speakers and editors, an illogical, insincere jumble of "strenuous feebleness." To speak with dignified reserve,—as a piece of popular literature it is unworthy in selection, in arrangement and in style.

The dignity of national politics demands better expression than this—better arranged, more accurate, manlier, and more interesting. And it is an important matter. If the great dominant party of the Republic, through one of its active committees, approves work done on this low level of immoral literary incompetency, the influence of the campaign, so far as this book affects it, will be degrading in both thought and speech. Every man who had to do with it ought to be ashamed of himself. Campaign "literature" ought to be literature.

The guardians and critics of our contemporary literature give attention to any piece of trash that is put forth and called a novel. But a common novel has no influence in the world. It does not seriously touch the life or the thought of men. Yet when a book appears on a serious subject that will be quoted by a thousand public speakers and in more than a thousand newspaper articles, they pay no attention to it. Nevertheless, by any proper understanding of literature a campaign-book is of infinitely more importance than a common novel; for it goes to the people, it shapes their thought and affects their character and sets the tone of their speech on political subjects for six months. When we come to have a proper understanding of "literature" in its making, we shall take such a book seriously. If we merely brush it aside with a shrug and say, "Of course, it's a mere piece of political hack-work," we encourage the continuation of mere hack-work about so serious a subject. And what chance is there that we shall ever have political literature worthy of the Republic?

To the Congressional Campaign Committees of all Parties:

Gentlemen:— Engage men to make your books who have clear thought, who write simple and clear English, and who believe what they compile and write. It is important that the political thought of the people be clear and high and sincere. The literature that you publish is (much of it) a lie; and it degrades you and the speakers and writers of

your party. Your books could be made to have an elevating influence. The public deserves to be served, not cajoled and hoodwinked.

THE PHILIPPINE FRIARS AND CHRISTIAN DIPLOMACY

THE mission of Governor Taft to Rome was to induce the Pope to request the friars to withdraw from the Philippine Islands. Our Government there offered to pay for their lands and, of course, to permit other priests of the Roman church to minister to the people. It is not our Government that objects to the friars, but the Catholic Filipinos themselves. So distasteful were they to the native population that it was a part of Aguinaldo's programme simply to confiscate their lands. They stand in the natives' minds as a part of the oppressive Spanish régime; and they hinder social order and economic development—these truly mediæval priests. We must get rid of them. Their removal was early recognized as one of the necessary conditions to the development of the people. But it is not in accordance with American methods forcibly to expel them, and the treaty of Paris forbids their expulsion. We must get rid of them by just and gentle methods.

Plain as the necessity to be rid of them is to the Filipinos and to the Americans, the friars naturally appear in a different light to the Vatican. They belong to three of the great missionary societies of the church. They have long been established there. They not only hold valuable property, but they are in proper form at least the spiritual guardians of these people whom they converted to Christianity. It is not strange, then, that the request presented by Governor Taft, that the Pope request their withdrawal, was at first refused. Perhaps its refusal at first was expected.

Yet there is little reason to doubt that they will be withdrawn within a reasonable time, if not all at once and immediately. The pressure of events—the sheer force of the new order of things—will convince the Church that they belong to a period that is past. And Governor Taft so conducted these delicate negotiations as to win the esteem of the Pope. The most cordial relations were established. The interviews and the exchange of communications were so conducted that the mission was called "a signal instance of Christian courtesy." The negotiations will be continued at Manila between Governor Taft and an apostolic delegate. Of the ultimate outcome there seems no reason to have doubt. Since as complete religious liberty is guaranteed in the Philippines as in the United States, the Roman Catholic population there will have priests of their own faith and of their own choice; but they must and will be, as all clergy are in our own country, wholly free from governmental entanglements. It is noteworthy that many of the leaders of the Church in the United States actively give their influence to the settlement of the question as proposed by our Government.

Thus it is that the problem of the Philippines is a many-sided problem. It is not simply reducing to order untrained and mistrained and misled groups of peoples—with the military, administrative, educational, and industrial tasks that this involves—but it is also the straightening out of old difficulties of the most stubborn and delicate nature. It calls for as great a versatility of administrative talent as any task that was ever presented to civilization. For this reason there is work for every sort of organization that has a benevolent aim—from educational bodies to churches. And it is gratifying that even the temperamental critics of our Government give Governor Taft and the Commission at least the approval of their silence. It is the duty of our citizens to give them the active encouragement of appreciation, applause, and practical help.

AMERICAN SOCIETY IN THE MAKING

THE contradictory nature of life in New York (where, in fact, there is a greater variety of population, of emotion and of endeavor and a more complex play of all human forces than there ever was in any other great capital of the world) was lately shown by three simultaneous events. In the same week the dominant element of the city showed its respect for Mr. Hewitt on his eightieth birthday—in striking refutation of the assertion that busy America is inappreciative of the wisdom of the old; a swarming multitude of foreign orthodox Hebrews buried its chief Rabbi, himself a foreigner, with such a proces-

sion and such a universal evidence of grief as have seldom graced the funerals of kings; and the deposed, exposed and disgraced "Big Chief" Devery gave a picnic to 20,000 women and children as his first step on the road that leads to the post of Tammany Boss. All the orthodox synagogues in the Ghetto contended for the honor of having the funeral of the beloved Rabbi, and his body, followed by thousands of devout Hebrews, was carried to one house of worship after the other for a short service. It is doubtful if any preacher in the United States would be so sincerely mourned by so many persons as this venerated shepherd of his people was. It is certain that nowhere but in New York City could a Devery begin a probably successful rise to power (for if he reach his ambitious aim Senators and Party Leaders will pay him homage as they have paid Croker) by hiring steamboats and barges and taking on a great picnic enough women and children to make the population of a small city.

The welding together of the heterogeneous masses that look for leadership to Mr. Hewitt, to an orthodox Rabbi, and to Devery—this is a task that even an omnipotent democracy may contemplate with seriousness. Yet the saving truth is, this welding process is all the while silently going on with such success as entitles it to be called the most wonderful chapter in human history.

A VISION OF PLENTY

"THE movement of the crops" becomes a familiar, and to some readers perhaps a tiresome, headline in the newspapers. The despatch from a Western city tells of the lack of cars, or of the movement of currency. We hastily read it, and our eye runs swiftly to the next item. But there is nothing more impressive in all the annals of man's industry than the gathering of the great crops from the illimitable acres of our prairies and their transportation to almost every country on the globe —eastward through our seaports to Europe, southward by our great river and from the harbors on the gulf, westward from our Pacific ports to the swarming population of the Orient. Almost within the memory of old men yet living agriculture was an industry that Abraham would have recognized: most of its labor was done by hand. Farm machinery ought a new economic era.

Consider the census report on agriculture that has just been published. In 1900 there were nearly four times as many farms as there were in 1850; and the value of farm property was five times as great, and there were twenty-five per cent. more farms than there were in 1890, and the value of farm property was twenty-eight per cent. greater. The number of farms that the census reports (June, 1900), was 5,750,000, and their value was the incomprehensible total of more than $16,500,000,000. The gross income from them was $3,750,000,000, or about eighteen per cent. of their value —colossal totals and a fair rate of income for a vast population.

Yet, although we have had the enormous benefit of machinery applied to agriculture, farming is yet crudely and wastefully done in most parts of the country. We are just beginning to learn the science of it. Nearly fifty per cent. of the total value of the product is cereals, because machinery has been more successfully applied to them than to other crops. Less than thirteen per cent. of the value of our total products is cotton; vegetables are less than eight per cent.; fruits less than five per cent.; sugar and tobacco each less than two per cent. We have had a revolution wrought by machinery with this prodigious increase of product and value. We are within sight of another revolution by the wide application of scientific methods, and this in turn will bring another prodigious increase of product and value. There opens up before the master of agriculture a larger vision of plenty, within demonstrable reach of mankind, perhaps, than men of any other calling see.

A LESSENING MARGIN OF COMFORT

THE Commonwealth of Massachusetts puts forth more interesting and, as a rule, more accurate statistical studies of labor and living and prices and such things as concern the public welfare than we yet get from any other State. The recent report on the cost of living is instructive—as far as statistics about such a wide range of subjects can be trusted. The main facts shown about the cost of living are these: that since 1897 the cost of food to the consumer has increased eleven per cent., the cost of dry goods sixteen per cent., rent fifty-two per cent., and fuel nearly ten per cent. The greatest incease in food-cost has been in meats.

Only inexperienced students of statistics and of social subjects will accept these figures as telling the whole story of the struggle for a comfortable existence; for wages also have risen somewhat during these five years, but they have not risen in proportion to the increase in the cost of food. There is, therefore, undoubtedly a smaller margin for savings than there was half a decade ago; and the conditions of life in Massachusetts are not essentially different from the conditions in other manufacturing States.

THE CONTINUED RISE OF THE TEACHER

THE teacher continues to grow as a force in American life, and the public-school teacher faster than any other. The National Educational Association at its meeting this year put forth a "statement of principles" so clear and so earnest that it is a document of national importance. Compulsory education with the proper regulation of child-labor, the training of teachers with the same thoroughness as physicians and lawyers are trained at the best professional schools, elasticity in grading pupils, the adaptation of courses of study to pupils and not the adaptation of pupils to courses of study, the study of the Bible as literature, improvement in the sanitary qualities of school-houses, (with a commission to publish the best information about good building); the encouragement of summer schools for teachers, the organization of the Department of Education as an independent department of the Government—these are some of the things set forth in this statement in a tone that shows confidence in an awakening public opinion. The National Educational Association has become a strong and business-like body whose standing committees continue to do most excellent work; and this year it chose President Eliot of Harvard as its President.

The steady rise of the public-school teachers is attested, too, by the ever-increasing earnestness of the multitudes of them that give their vacations to better professional preparation. Almost every important college has its summer school for them, and the attendance this year was much larger than usual. Sheer entertainment is fast eliminated from their courses, and well-equipped specialists do serious work with earnest classes. In some parts of the country attendance on a summer school course in pedagogy is made compulsory for public-school teachers. Doubtless a vast mass of muddled nonsense is put forth in the name of pedagogy, and many a woman confuses her mind with it during the months when she ought to be giving her body rest. But individual tragedies cannot fairly be charged against a general and earnest movement for the better equipment of teachers.

At Knoxville, Tenn., for instance, in the summer school of the South, where very serious work was done, more than 2,000 persons gathered from all the Southern States. It was said to be the largest school of teachers in the world; and most of them were women who represent the best social traditions of those States. Most of them, too, had received college training, if seminaries for women may be called "colleges." The social significance of such a gathering in the South is great, for it means that the best women—best in culture and best in good breeding—are developing the public-school system there. At the University of Virginia, too, and at Rock Hill in South Carolina and at other institutions similar companies gathered.

Everywhere the public schools must have teachers of the best social training as well as the best intellectual equipment if they are to reach the level of their opportunity. The Southern States are to be congratulated on their perception of this truth, which has been forgotten in some parts of the Union.

SPECIAL TRAINING FOR JOURNALISM

THE announcement has been made of a School of Journalism in New York. It will admit only those who have had high school training, and it will give diplomas after a two-years' or a three-years' course in professional study equivalent in discipline and in range to a two-years' or a three-years' course in the law. The curriculum includes, besides several branches of legal study, economics, history, English literature, and American politics, professional courses in "The Principles of Journalism," "The Art of Writing English," "Reportorial Practice," "Editorial Practice," "Magazine Practice." Each of these practice-courses is to continue for two or for three years under the direction of men of experience in writing.

The value of such a school will depend, as the value of any other school depends, on the skill and the thoroughness with which its work is done. But this is a sensible programme. Journalism, daily, weekly and monthly, demands the work of well-trained men and offers good careers; and it is work for which men can be trained.

One of the most persistent absurdities in educated life is the notion that any "educated" man can write. Nobody would maintain that any educated man can paint or play the violin or do an architect's work or a sculptor's: we all grant that these arts require training. But we go on with the lazy assumption that no such training is necessary for a writer. It is this loss of proportion, this way of regarding the literary art by practically the whole educated class in the United States that is responsible for the loose writing in our magazines and newspapers. We have somewhat the same feeling about writing that we once had about public office or about teaching—that anybody is fit for it.

Yet the plainest fact in the world, if our slap-dash vanity would permit us to see it, is that well-trained writers could make our periodical literature as much better than it now is as trained teachers are making our schools better than they were in the days when anybody who could read was considered a capable teacher.

THE COLLEGES AND JOURNALISM

THERE is a strange and persistent misunderstanding of journalism at most of our colleges. A few of them offer courses that look towards newspaper work, but as a rule they are shocked at a proposal to train men especially for it. For academic life does not regard the profession seriously. Consider the case of Yale University, for example. It has a fund for a lecture or two on journalism, and the last lecturer that it invited was Mr. Frank A. Munsey, the owner of the magazine that bears his name. Colleges that have Professors of Veterinary Medicine and of Dentistry and of Mechanical Engineering and of Agriculture take offense at the suggestion of a Professor of Journalism.

Yet it is surely true that they might offer such professional post-graduate courses parallel to their courses in law and in medicine, and so conduct them that the men they train should be able to construct with some skill a simple piece of writing. Most men who now go from college into periodical-writing go at a disadvantage, for they think that they can write because they have done academic "themes" and taken courses in literature; and they are impatient of the long apprenticeship that they must serve. Many such a man never learns that writing is an art. They get rough-and-tumble work for a time on daily papers or they "review" books and then frankly accept the fate of hacks, become self-conscious, degenerate into martyrs, complain that there is no chance for "literature" and haunt magazine offices with impracticable propositions—all because (in most cases) they were not taught in the beginning that the writing of contemporary literature is an art and because they undertook it without training.

Our colleges and universities, especially their departments of literature, have some grave sins to answer for, because they do not even frankly tell young men that writing is a difficult trade (to say nothing of the art of it) and because they do not adequately train them for it. They let them go with a radically false notion of the whole subject.

A generation of really well-trained writers on contemporaneous subjects would be the best practical investment that our universities could make for the building up of good speech and of clear thinking in our democracy.

GREAT AND GUILELESS MINISTER WU

MR. WU'S long-rumored recall has at last been received to the loss of our entertainment He used his Oriental guilelessness with the highest skill as an oratorical and diplomatic device. He welcomely took liberties both official and personal that no other minister could have taken. He knew that we knew that he knew better; but he soon found out that we liked him; and he amused himself with us while he entertained us. For, shrewd philosopher that he is, he got more fun even than we got from the game he played. From the eminence of his immemorial civilization how he enjoyed his ridicule of our cruder life! He pricked our bubbles before our faces; and, while we smiled at him, he roared at us. He felt himself equal to a whole nation of Americans—orators,

diplomats, wags, newspapers and all—when the game was a game of badinage between civilizations. And so guileless was his manner that we applauded him when he insulted us. Thus he became a privileged person.

Behind the part that he played as wag was his serious work; and he established a claim to the lasting gratitude of civilization. Secretary Hay used him, as he was willing to be used, to the greatest advantage. The picture of an Oriental diplomatist rushing in an automobile at an unconventional hour to the Department of State with an assuring telegram from Pekin, when all the world had given up hope of the besieged legations there, will never be forgotten by any man who saw it or who even read of it. A very remarkable man is this great Chinaman who served all civilized mankind at that trying time in the most delicate and loyal way. And no minister was ever placed in a more difficult position. He proved himself true to Western civilization; and Western civilization will not forget him, and it will follow him in whatever political tasks he takes up at home with gratitude and all good wishes.

Mr. Wu's successor, Sir Liang Chen Tung, is a man who is expected to continue and even to strengthen the satisfactory American-Chinese relations. Educated in our own country (at Yale) and knowing Europe as well as he knows Asia and knowing America perhaps better than he knows either, he is expected cordially to help forward the American policy in dealing with China and with the other Powers about Chinese problems—a policy that has made Mr. Hay's Secretaryship historic and has reflected the highest honor on American diplomacy.

A QUIETER PERIOD FOR ENGLAND

A CHANGE of Prime Ministers in England can come—as it has lately come—with as little shock as a change of Presidents in the United States; for one capable man always seems to await the going of another capable man. In this case they are of the same great family. Mr. Balfour, in fact, owes his career to his uncle, the Marquis of Salisbury. He began life rich, somewhat weak in body, without apparent seriousness. His early years in the House of Commons gave little promise of the force that, as leader, he afterwards developed. Having been a man of thought, he almost suddenly became a man of action also when the difficult task of the administration of Ireland was put in his hands.

He will be identified perhaps more closely than any other man in the public life of the Kingdom with the reign of Edward. The King now seems likely, thanks to the skill of modern surgery to which he owes his life, to live his natural length of years. The postponed Coronation deprived the world of the splendid pageant that had been planned, but the King's illness drew his people closer to him, and the simpler coronation gave an occasion for a display of loyalty as great as the more spectacular event would have provoked and perhaps more sincere. The South African war ended, the King recovered and crowned, the new Prime Minister having the confidence of his party and of his country, England seems to have reached a chance for a smoother flow of events than she has had for several years. And the great English masters of industry and of trade will correspondingly become active in more quarters of the world.

THE THICKENING DIFFICULTIES OF CUBA

THE proposal by Cuba to make a large loan—large for the resources of the Government—has raised a delicate and embarrassing question. At what stage of this proceeding, if the loan be offered, must the United States interpose under the requirements of the Platt Amendment? This act of Congress, in agreement with which the new Cuban Government was organized, forbids the contraction of any debt too large to be carried (and a sinking fund provided) by the normal revenues of the Government.

Without a loan it is hard to see how the new republic can efficiently conduct its affairs; but, if our Government must intervene, intervention will put an obligation on us that those who wish for the independence of the island will regret. The annexationists, both Cuban and American, find but one way out of these difficulties, and such difficulties undoubtedly strengthen their party. But the American public is not in favor of annexation nor of any Governmental action that looks toward it. If they assert their opinion with emphasis, the thickening difficulties will somehow be solved; many a Government has faced a worse problem.

A NEW ERA IN FINANCING REAL ESTATE

THE NATURE AND SIGNIFICANCE OF THE GREAT REALTY COMBINATION RECENTLY EFFECTED IN THE CITY OF NEW YORK

[THE WORLD'S WORK publishes every month an article in which some timely and vital subject of the financial world is taken up

OF great importance financially was the announcement made early in August that a combination to be known as the United States Realty and Construction Company had been formed in New York City—to operate in all the leading cities of this country—of five of the strongest, if not the strongest, real estate corporations in the metropolis. Capitalized at $66,000,000, this merger commands a backing of almost overwhelming proportions. It is to have not only the strength of the five great corporations concerned, but J. P. Morgan & Co., are to have a representative in the directorate; Charles M. Schwab, of the United States Steel Corporation, is to be one of the executive committee, as is also James Stillman, president of the National City Bank. The Equitable Life Assurance Society, the Central Trust Company, and the Illinois Trust Company, of Chicago, are also, it is announced, to be largely interested.

The companies directly concerned in the merger are the George A. Fuller Construction Company, with its $24,000,000 capital; the Central Realty Bond and Trust Company, with $2,000,000 capital and $8,000,000 surplus, a company only four years old but amazingly prosperous; the Lawyers' Title Insurance Company, with $8,000,000 resources; the New York Realty Corporation, capital $3,000,000; and the Alliance Realty Company, capital $3,000,000. The George A. Fuller Construction Company—the most powerful member of the combination—has enjoyed wonderful success in the erection of large office buildings, especially of the "skyscraper" type, the company's operations including Chicago, Baltimore, and Washington, as well as New York and other large cities.

Modern methods of transferring real estate are still very cumbersome. The improvement upon the era when all real property was transferred by the planting of stakes and other ceremonies connected with the owner's taking physical possession has not been great. The transfer of deeds is complicated with a vast amount of annoying formalities. When a man now buys a valuable piece of property, it is necessary that he should have the title carefully inquired into, that he should pay a certain insurance upon the validity of his title, and that yet other minor formalities should be complied with.

Conditions have been rendered even more inconvenient by the fact that nearly all real property has been owned by private individuals or estates. When the owners died it was often necessary to either sell the entire plots and divide the proceeds or to actually partition the properties. Litigation over complications of this nature has often prevented the development of extremely valuable properties. It was realized long ago that the partnership agreement was not satisfactory for the conduct of large business concerns. The corporation was a vital necessity, if the continuity of the business was to be assured. The real estate business has, in a word, up to the present time been in the partnership stage. The idea of dealing in real estate as so many shares of stock is a manifestation of new financial conditions.

This scheme has been partly utilized in Boston. There—where the corporate form could under the law scarcely be utilized, many great properties have been placed in the hands of trustees who have issued trust certificates for a stated proportion of interest in the respective properties. This plan suffered obvious disadvantages. The first use of this same idea upon a large scale in New York City was in the early spring of this year when the several million dollars mortgage

of the thirty-two story Park Row building was divided into small bonds bearing a stated interest. This bonding of a property, however, prevents the bondholders from sharing in whatever increased profits may be realized. There is no speculative interest on the bondholder's part.

In commercializing real estate, this new combination will view each large property which is purchased as a great industry to which must be applied the same rules of economy and careful management as is the case with large manufacturing plants. When the property is first purchased, the question of title will be forever settled. An investor buying a share of stock in that land will no more think of inquiring into the title than he will concerning the title of a railroad to its plant. Deaths will not destroy the integrity of the property. The shares will pass to the proper heirs just as any other personal property.

Obviously, it will be impossible for a corporation with even $66,000,000 capitalization to purchase and develop real estate in a city like New York to any great extent, comparatively speaking. When it is considered, also, that this corporation will include many cities in its operations, the impossibility will be observed to be all the greater. It will be the purpose of this new combination, therefore, to secure whatever properties may be desired and then turn them over to subsidiary corporations which it will form. Even this plan of action will have its limits, so that when the success of this company is assured others of a like nature are apt to spring up. The field is an entirely undeveloped one, and there is room for an abundance of progressiveness.

Shareholders in subsidiary corporations in a scheme of this kind, should it be well managed, would enjoy the benefits of profits from two sources. Should an office building be erected in a popular district, for example, the investors would enjoy dividends from whatever increase there might be in the value of the rents. Secondly, it would be possible to effect certain economies both in building and operation of which little or no use is made at the present time.

As an example of what is meant, one might consider that property lying on the east side of Broadway, New York, running about two hundred feet south from Wall Street—probably one of the most valuable sites for an office building in the world. On the corner of Wall Street there is a small and ancient three-story structure. Next door there is an office building with fifty feet front, equipped with elevators and other conveniences. Then come three other office buildings of various heights, each with its own equipment. It will be the object of this new corporation to take a plot as large, say, as that covered by all of these buildings and erect one structure upon it.

There would be a saving, to start with, in the very purchase of the property. If the land should be owned by a number of different individuals some of whom should desire an extortionate price for their holdings, the new concern might say to them:

"If you think your property is so valuable why not come in with us in the enterprise? We will pay you in shares of the new corporation."

On the other hand, if there were two plots of ground upon one of which a building was to be erected and which was to be operated by a powerful and well-managed corporation, owners of the more desirable land would not be so apt to persist in obstinate demands for a very high price. They would realize that if the building went on even the less desirable property it would still be so economically managed that no building that they themselves could build on their own land could compete with it.

There would next be a saving in architects' charges, contractors' commissions, and in the purchase of materials. The corporation under discussion will probably enjoy peculiar advantage in the construction of steel buildings from the fact that the Steel Trust president is to be a director. But any corporation erecting one building instead of five upon the same plot of ground would enjoy large economies in this respect. In the building itself there will be greater opportunities for light courts, thin partitions, and economies of space in every particular. The elevator equipments could be very greatly improved as well as securing the savings incident to the operation of only one plant. In property as valuable as that on Broadway and Wall Street, taken as example, every

saving of a square foot of space would mean increased revenue for the owners.

In the conduct of these large buildings there will be yet more economies. The layman little realizes the quantity of supplies necessary for the extensive office structures in our cities. Great economies could be effected through large purchases in brick. With a tremendous building under a single management, there could be great division of labor in the matter of janitor service, there would be necessary only one superintendent. The collection of rents could be economized. It would be possible also to place in such a building unusual conveniences for the benefit of the tenants and still preserve the net economies which have been specified. The idea of having a stenographic establishment, a book store, a soda fount, a barber shop, a manicure establishment, a dentist, an oculist, a surgeon, a physician, and others in a great office building has already been partly developed. It is possible to do much more.

The practical operation of this new combination's plans will, accordingly, partake very much of the nature of that of a trust in so far as the economies from a large establishment are concerned. The very conception of making a profit from real estate in this manner is a part of this twentieth century's progressiveness. It is all, however, but a part of this movement, now promising such great development, toward the commercialization of real estate.

SAVINGS BANKS

PAYING SPECTACULAR DIVIDENDS AND GUARANTEEING SECURITY TO DEPOSITORS—THEIR DEVELOPMENT ONLY AT ITS BEGINNING—A BANK FOR EVERY TWO PEOPLE IN MASSACHUSETTS, ONE FOR EVERY EIGHTEEN IN THE WEST, ONE FOR EVERY FORTY-EIGHT IN THE MIDDLE WEST, ONE FOR EVERY 306 IN THE SOUTH

BY

IVY LEE

IT was but a few years ago that savings banks were paying depositors five per cent. interest. At the present time only three out of twenty-six such institutions in New York City pay as much as four per cent.; three and one-half per cent. is the prevailing rate. Even the old Bowery Savings Bank, which withstood the drift toward the lesser rate for several years, capitulated at the last dividend-date and announced that its rate would be one-half per cent. less than the four per cent. that had been paid. The three banks which still pay four per cent. are able to do so only by virtue of certain peculiar conditions of lucky investments or the holding of unusually large dormant accounts.

Nor do these payments of even three and one-half per cent. represent the actual earnings of the deposits in these banks. As a result of very careful management in periods when safe investments paid six and seven per cent. many of the savings institutions in New York City have been able to accumulate large surplus sums. Depositors thus secure the benefit not only of the earnings of their own savings but of these surplus assets. If savings banks in the metropolis paid interest only on the earnings of deposits, it can be safely said that the present rate would not be more than three and one-quarter per cent. Indeed, in spite of the surplus accumulations, it is not likely that it will be very long before this reduced rate will be paid by most institutions.

The conditions in New York State are worthy of careful study for numerous reasons. Here are located about one-eighth of all the savings banks in the United States; here are deposited more than one-third of all the sums deposited in such institutions in the whole country. There is a savings account in this State for every 3.5 of the population. The trustee savings bank idea has here reached

its most perfect development. Yet here are to be observed the operation of those peculiar political conditions which are apt to surround the working of any great American institution. In spite of a tendency toward a lower rate of interest, the New York Legislature not long since passed a law taxing savings bank surpluses one per cent. On the other hand, when an attempt, which proved successful, was made in the last session of the State Legislature to add to the list of corporations in which savings banks might invest, and thus possibly prevent the rate from going still lower, the demagogic cry was raised that this was a plan to favor certain railroads, and that the earnings of the people were to be jeopardized for the benefit of rich corporations.

Those who have made a scientific study of savings banks realize perfectly well that in this tendency toward a low rate of interest lies a most serious problem. It affects what is in many respects the most important purpose of the savings institution—the teaching of habits of thrift and economy. If the poor and shiftless are to be taught to save, the earliest lessons, at any rate, must be accompanied by an inducement as spectacular as possible. The rate of interest must be as high as possible, else the very man whom it is most desirable to have reached will rather enjoy the pleasures of the moment than wait for perhaps just a little more pleasure at some future date.

Savings banks must be viewed in both their sociological and financial aspects. This problem of teaching the working classes to save is of vital importance, especially in a country with a free ballot. It is essential to the development of good citizenship that the savings of the poor should be invested for them, and that this work should be done with such ability and honesty as will prove both an object lesson and a practical benefit. It is also true that sound finance demands that the savings of these people should not be hoarded but should be made available for the productive needs of the community.

It is little realized that savings banks have as yet attained but little development in this country. There are only a few more than 1,000 such banks in the whole United States. There is only one savings account to every twelve of the population. Exclude New England and the State of New York and it may be said that savings banks have not been developed at all worth mentioning in this republic. Observe the possibilities of such development in the State of Massachusetts with a savings account for every 1.9 of the population. On the other hand, in the Western States there is but one account to every eighteen of the people; in the Middle States, but one to forty-eight; and in the South the proportion is but one to 306.

These figures are indications of sociological conditions well worth remedying. In the Western States, people accustomed to seeing fortunes made in a day are not yet ready to accommodate themselves to the slow conservative habits of the savings bank. The pursuit of a financial competence is still, generally speaking, a huge gamble. In the Middle States, the disproportion of savings accounts to the population may be accounted for by two facts: namely ,the large agricultural population in the rural communities, and the tremendous unorganized immigrant population in the cities. The first of these facts is not so serious; the second is extremely so. In the Southern States, the situation is still more critical. There the Negro has not yet conceived an adequate idea of the nature of property rights. His greatest economic need is to be taught the importance of acquiring property legitimately. This is the fundamental idea of Booker T. Washington's work. It is self-evident that here is a field for savings institutions of greatest value to the country. Vast missionary work would have to be done to insure success, but such success would be well worth the getting.

It may thus be said that while the savings bank has been well developed in New England and New York, there is still much to do in the territories of even these states. It is necessary to pay close attention to this sociological problem in considering the financial aspects of savings banks. The money market is interested in securing as much benefit as possible from the accumulations of the working classes. The working man, however, cares little for theories. He wants a good return for the money he places in the custody of the savings bank. If he does not get a good return, he is apt to either spend or hoard his money. The money market, therefore, must pay a comfortable rate of interest

to secure these savings. As it may be considered that the greater the amount of saving the more benefit to society, the close relationship between the high interest rate and the sociological advantage is apparent.

Some idea of the importance of these savings to the money market may be had when it is realized that the total deposits held by savings banks in this country amount to about $2,750,000,000. In what manner these accumulations have been availed of is shown from figures compiled for the year 1899, which include the whole country. Savings banks at the end of that year had outstanding total loans of $1,098,598,589, of which there were $878,126,859 loaned on real estate security; $512,777,336 in the bonds and stocks of municipalities; $167,998,336 in railroad stocks and bonds; and $136,930,208 in United States Government bonds. In the State of New York savings banks carry eighty per cent. of the bond issues of cities, the total issues amounting to more than $175,000,000. Banks in New York are not allowed to invest in industrial corporations, but one of the most conservative institutions in the United States, located in the City of Lowell, Massachusetts, loans money to the great factories of that city. Thus the wage earner becomes the creditor of his employer, and he is much less apt under such circumstances to embarrass his debtor with strikes and other disturbances.

In considering this subject it must be borne in mind constantly that absolute security of deposits is the only foundation for savings banks' existence. Just where to draw the line in the matter of investments, therefore, becomes a most difficult problem. Even now there are scarcely enough safe investments to supply the demands of the savings banks. Municipal bond issues by safely managed cities are not as plentiful now as they were a few years ago. The competition between savings banks to secure the issues which are made of course reduces the rate of interest any of them may obtain. It is true that the list of safe securities is enlarging, but with that enlargement goes a reduction of interest. Railroad bonds become safer each year, but industrial securities are not yet sound enough for savings banks to handle in any great quantity.

: the president of any great savings bank in New York City what his greatest desire is, and the answer will almost invariably be, smaller aggregate deposits and more depositors. This signifies that the well-to-do elements of the community have greatly complicated the savings bank problem. Savings banks, at least of the trustee type in New York State, are essentially philanthropic institutions. There are no stockholders, no dividends except to depositors, and the trustees serve without remuneration. It is obviously unfair, therefore, that the well-to-do, those who have learned to save and are able to invest their own money if they only cared to take the trouble, should avail themselves of the services of a savings bank to invest their money for them. Some check upon operations of this character is imposed by the provision that no depositor shall have more than $3,000 in each bank. But when it is considered that there are twenty-six such banks in New York City alone, and there is no prohibition against an account in more than one bank, the opportunity of the lazy investor may be realized. In only a few States in this country is there any limit at all to the size of savings bank accounts. This, however, is only an indication of the lack of development of the real savings bank idea. In England, the amount of a savings bank deposit is limited and anyone depositing in a second bank forfeits his deposit in the first. This is a stringent remedy—too stringent, undoubtedly, for application in this country—but some remedy of this character is unquestionably demanded in New York State.

Much is to be said for the plan of systematically teaching the savings principle in the public schools. Much is to be said for the Baltimore and Ohio Railroad system of establishing a savings bank under the auspices of the corporation with special inducements to employees to make deposits. Those public-spirited men who are struggling to instil ideas of saving in the minds of the poor, giving time and thought to the problem, have made themselves creditors of civilization. The money market and industrial organizations owe it to savings banks and the idea for which they stand to make their "securities" really secure, so that they may be of value to the working classes and these classes of benefit to them.

A TYPICAL IRRIGATED COMMUNITY

THE FARMER—WHAT HE PAID FOR HIS LAND—HOW HE DEVELOPED IT—THE PROFIT HE MADE—THE TOWN AND ITS CIVILIZATION—IRRIGATION STUDIED IN THE LIGHT OF RESULTS

BY

JOSEPH BLETHEN

Illustrated from photographs by E. E. James and others

I.—THE TYPICAL RANCHER.

WHEN John Smith, of Some-Place, which is a typical agricultural community east of the Dakotas, first read of the wonders of a twenty-acre irrigation ranch at This-Place, which is a typical irrigation community west of the Rocky Mountains, he was skeptical. But when Tom Jones, his cousin on his wife's mother's side of the house, received a letter from a distant cousin of still another branch of the family saying that he had bought twenty acres of arid land in This-Place, paying $60 an acre (including a perpetual water right), John decided to watch the experiment. This he did by correspondence with the experimenter, and became so convinced of the wisdom of it that two years later he sold his home in Some-Place and journeyed West to begin life anew in This-Place.

At This-Place home acres were called ranches, in distinction from the ranges, for there were built the houses and corralls. John Smith found men with 40-acre hop ranches, 20-acre alfalfa ranches, 30-acre hay ranches and sometimes 5-acre chicken ranches. He thought that "poultry farm" would sound better, but when he wrote back to Some-Place he referred to his own twenty acres in This-Place as "my new ranch under the Yakima ditch." Nobody said "canal" and so he did not.

One thing which had worried John Smith before he sold out his 100-acres at Some-Place, was a variation in the descriptions of the soil of This-Place. In one account he read of the arid "desert sands" and he supposed that the soil must be like the stretch of sandy road between his farm and the Thompson place next the river. Naturally, he doubted the statement that anything would grow in such sand. Another account said that the soil was "silt and volcanic ash." John took a long look at his own ash pile and again doubted the advisability of moving to This-Place. Again, he read that irrigation farmers leveled their fields, and he wondered what insanity prevailed among men who could turn their top soil into a hollow for the sake of leveling it. When he arrived at This-Place he found that the soil was a deposit of the prehistoric glaciers which had moved slowly through these now arid valleys, grinding the sides of the mountains to a powder which was dropped into the beds of their courses as they crept on. He found the soil to be as fine as flour and as easy to plow as sand. Because of the lack of vegetation time had not enriched the top soil, and the leveling of fields only exposed more soil of the same quality. One man in This-Place dug a well fifty feet deep, and for forty feet this volcanic ash remained absolutely uniform.

On his arrival John looked at the sage-brush desert rising gently up to the hills on one side the ditch and then at the thickly populated, tree-shaded abundance of green growth on the slope below the ditch and he doubted if a simple combination of sunshine, soil and water under the guiding hand of a plain man like himself had done it. In just three years this same John Smith's twenty-acre ranch was one of the best paying spots under the big Yakima ditch. In five years his home was one of luxury. For John Smith, typical irrigation rancher, had been brought up to habits of thrift, and he worked hard from February to October, and from October to February he could play checkers and build new barns.

John sold his one hundred acres at Some-Place for $2,500. It cost him only $300 to move out to This-Place, because the whole

rental to keep it in repair. There are other plans, but this is the logical one, and may be called the typical community system.

John Smith took the advice of his host about laying out his ranch. First, he hitched two spans of horses to the opposite ends of a twenty-foot piece of railroad iron. By dragging this across the land, as he would drag a two-team harrow, he cut the sage-brush off close to the ground. Then he burned the sage-brush and thought that clearing land in that fashion was a joke. A barbed wire fence around the twenty acres came next, with another fence of boards and netting enclosing the acre in which was to be placed the house, the barn, the chicken runs and the garden. It took him a few days to level the land with his own two horses and a borrowed scraper. Then his kinsman came over and laid out the place.

A solid ten acres were marked off to go into alfalfa, the staple of all irrigation ranches. Five of these ten acres were to be pasturage, five for cutting. One-half an acre was marked off for a small orchard which would yield fruit enough for home use. Eight and one-half acres were marked off to go into potatoes, peas, onions and melons,—the best crops for a first-year venture.

Of alfalfa this typical ranch raised that first year, on its five cutting acres, fifteen tons; the other five pastured all his stock; of eggs, cream, potatoes, onions, peas and melons it grew, over and above the family use, $250 worth; during that fall John Smith increased his live stock to seven milch cows, three yearlings and four pigs, and Mrs. Smith increased her poultry to one hundred pullets.

The second year the five acres of alfalfa produced forty-five tons of cured feed, and the other five pastured all his stock. From this forty-five tons he reserved two tons each for his ten head of stock for dry winter feed, fed five tons to hogs and poultry, and sold twenty tons to the sheep men. Other men did not pasture their cattle, but turned them on the range by day, cutting and feeding alfalfa to them in the barnyard night and morning. But John preferred to pasture his own stock. His other crops sold for ready money and on December 31 he found that, besides his living, he had made $1,000. He made his second payment on his land, and built an addition to his house.

AN ALFALFA FIELD READY FOR THE THIRD CUTTING
The alfalfa is higher than the fence between it and the orchard

he third year was a repetition of the sec- , and the berries and the fruits from the ard added to his income. His vegetable len was a wonder of variety and quantity. t fall he made the third payment and cipated the fourth and last on his con- t. Being out of debt he bought a horse a buggy, and Mrs. Smith bought new house ishings. The fourth year's profits en- d him to build a typical irrigation ranch- home, on which he spent $1,500. Mrs. th invested something in shade trees and bbery.

III.—THE TYPICAL COMMUNIT

So much ready money and so m lies on small ranches with no waste tween make a typical irrigation co This-Place enjoys daily rural free of the mails. Every carrier colle sells stamps and postal orders, and w letters. Telephones are common in houses and cost $1.50 a month. strument has a long-distance tr Telephoning to town is no easier t phoning another rancher at the b

STACKING ALFALFA

A TYPICAL IRRIGATION DITCH
The desert to the left; a growing orchard to the right

the valley, fifty miles away. John Smith may call up Spokane on the east or Seattle on the west, and any of the smaller cities in Washington, Oregon or Idaho.

This typical community told the assessor last year that it had 31,000 acres under cultivation. It contained 17,000 people, two-thirds of whom are on the ranches and one-third are in the towns. I think this is a larger percentage of rural population than you will find in the average county of Pennsylvania, New York, Ohio, or Indiana. This community has $1,250,000 in its banks belonging to residents. One creamery pays $10,000 a month in cash to the ranchers. The Chamber of Commerce says the gross income of the product of the valley for 1901 was $5,000,000—or $250 for every man,

AN IRRIGATED VINEYARD

A HOP FIELD

SHADE TREES BORDER THE ROADS
Leading out of irrigation towns

woman and child in it. This is the amount of money received for products over and above the living of the people. This includes all crops, dairy products and live stock sold.

Specialization is very tempting here. Sheep-men and cattle-men can pasture their flocks on the bunch grass of the upland ranges all summer, and feed them all winter from the product of a few acres in alfalfa. Orchard-men sell the fruit on the tree to the shippers, who pick it and pack it to suit themselves. Hops raised on irrigated land are free from mould and lice and become the leading grade in the market. Potatoes in this dry soil grow very large under the hot sun. By bringing successive crops of peas to maturity during one summer a twenty-acre rancher gets a big monthly check from the cannery. An alfalfa ranch is just as good as a pocket full of registered United States bonds; it is good for eight tons to the acre in its three cuttings. Alfalfa sells for $3 a ton in the

A WESTERN CONTRAST
Between the sage brush in the foreground and an irrigated ranch

stack, or $7.50 a ton baled and delivered on the cars.

IV.—THE TYPICAL IRRIGATION TOWN

The level desert lends itself to broad streets. Water runs on each side of the residence streets and nourishes beautiful lines of shade trees. An ample gravity water-supply from high up a mountain means lawns and flowers in luxurous profusion. The houses are of wood and have all modern conveniences. The business blocks are of brick; the ranchers buy for cash and buy the best. There are schools, churches and libraries. Bicycles and family horses are numerous. Many ranch owners live in town all winter, leaving the ranch in charge of a foreman. Newspapers, magazines and books are in demand. Life is peaceful and secure.

AN IRRIGATION ROSEBUSH

V.—A TYPICAL IRRIGATION CATECHISM

What establishes the value of typical arid land at $60 per acre?

The market. Twenty acres of arid land with the water right brings $1,200. In a year the rancher can sell it for $100 an acre. In five years his twenty-acre place with a $1,500 house will bring $6,000. The earning power of the typical acre has established that initial value. Other sections sell for less, but an annual water rental for every acre cultivated must be paid.

A CHARACTERISTIC COTTAGE ON A SMALL IRRIGATED RANCH

Copyright, 1899, by E. S. Curtiss

THE OLD NORTHWEST

The flat and arid country with rolling hills in the distance make a fit setting for the Indian of the old frontier

THE NEW NOB

ALFALFA-FED SHEEP

Why have so many well-constructed canals failed?

Because the builders intended to levy annual tribute on the water, and did not secure the arid land. Before their canals were done, speculators bought up the lands under the ditch, either from the State or from the railroads. Then the settlers, mulcted by both ditch builder and land grabber, soon ceased to buy.

AN INDIAN TEPEE ON THE COLUMBIA RIVER
Showing the desolation along the banks of the river from which many irrigating canals receive their supply of water

What is the successful plan?

To "sell sand in a sandy country." That is, to sell the land with the water right. Capital first secures the arid land that is to be reclaimed. Then the canal is constructed. Settlers are secured through agents sent into the Eastern States. To these settlers are sold the land with water rights at $60 per acre. Say that a given canal system covers 20,000 acres—when this land is all settled, the promoters lose all title thereto and the settlers own and manage the canal and sub-canals under the community system.

Why are there so few irrigation communities?

There are many reasons. First, water courses available for canals that cost from $100,000 to $500,000 are few. Second, men had to learn what the settlers would buy. Third, the recent hard times in the West set irrigation back from even the small

CUT ALFALFA, CURED AND READY TO BE STACKED

ALFALFA-FED CATTLE ON AN IRRIGATED RANCH

start that had been made. Fourth, capital has preferred urban to rural investment and is just learning the profits of irrigation enterprises. Fifth, a class of settlers with some ready money is required, and these men must be found, persuaded to sell their homes and to move to a new country. Thus education is necessary.

Can a man become an irrigation rancher without money?

Yes. He may rent an improved ranch and save enough in two years to establish himself on his own place, paying one-fifty down and the balance in five annual payments.

What sort of men succeed?

Only those who work intelligently. Irrigation farming concentrates a big productive power into a small space. A man must be thrifty and capable. He must keep steadily at it. Irrigation then becomes farming by an artificial, though sure programme, and its results are wonderful.

Markets?

So far, the population of the West has consumed all and imported more. The question of a bad market is as remote as the exhaustion of the Western watersheds.

If capital can do so well in irrigation enterprises, why ask the Government to build big canals?

Because the water supply is not controlled. In the winter and the spring enough water runs to waste to irrigate every State west of the Mississippi. Immense sums are needed to store and to control this water. Immense sums will be spent in distribution. No private enterprise can do it. The Government must do it, and when it does it can either throw the lands open to the public, or

A POTATO FIELD

sell them at a fair profit to settlers who, by their taxes, will keep up the system.

How is irrigation considered in the West?

A success. One transcontinental railroad in Washington lately announced that it would sell a new district of 20,000 acres, with water rights; and the land began to be sold at once.

APPLES GROWN BY IRRIGATION

BRED CORN WHICH REPRESENTS THE HIGHEST TYPES OF THEIR CLASSES

BREEDING NEW KINDS OF CORN

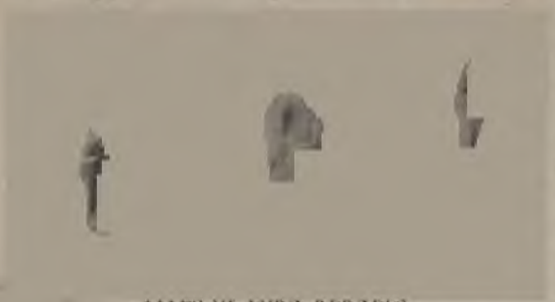
THE SUCCESSFUL EXPERIMENTS WHEREBY THE CROP IS INCREASED MANY MILLIONS' WORTH ON THE SAME ACREAGE — NEW VARIETIES FOR NEW USES — A DIFFERENT KIND OF CORN FOR EVERY SPECIFIC PURPOSE

BY

W. S. HARWOOD

Illustrated from photographs by the author and others

WHEN the seventy million people of a great country, whose industry has nearly every known ramification, wait for the reports of a certain belt of land and say: "A good corn crop means continued prosperity; a short crop means bad times," any work which gains a larger or better harvesting of this single powerful cereal takes on a national interest.



TYPES OF CORN KERNELS

...st or wedge shaped is the best because its shape permits the greatest amount of grain to the cob

At the Agricultural College at Urbana, Illinois, results have been obtained during the past six years in the creation of new strains of corn which are of striking importance. Professor Cyril G. Hopkins, of the Chair of Agronomy and Chemistry, assisted by Professor A. D. Shamel, instructor in farm crops, have been directing, moulding, outwitting, leading, re-forming Nature. In a word, they have re-created corn. They have compelled corn to grow for man or beast or manufacture. They have told the kernel to produce more protein, the great tissue builder of the race, or they have told it to produce less. They have told it to increase its quantity of starch, and to decrease it. They have told it to produce a large and still larger supply of oil, making it commercially far

STRAIGHT ROWS OF KERNELS
As in the ear to the left, are those selected for breeding

more valuable; and they have told it to curtail its supply of oil and give some other element more room. They have told the ear to change its form, so that it should be longer or shorter or leaner or plumper. They have told the corn plant to increase in height and to decrease in height and they have even told it that it must weave its leaves on a wider and larger pattern. All these things and more have they commanded of corn and in all of them it has obeyed.

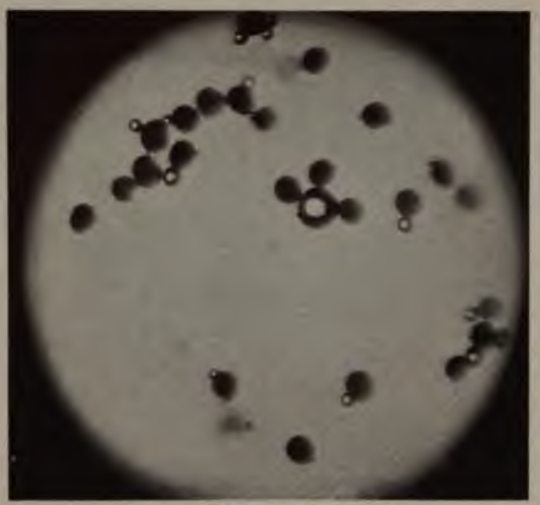
It is easy enough to feed a plant or starve it artificially; to give it a little more of this, a little less of that food and to watch it grow

GOOD, MEDIUM AND POOR CORN

into magnificent strength or slowly to
and die; or suddenly to be restored to str
again,—all this requires only a few bits
closed glass, some heat and a slight f
mental knowledge of chemistry. But to
a plant grow among a billion others in
field of grain so that it will produce a c
invariable kind different from any
produced before, to make it strong i
substance and weak in another at will,
is a different matter.

THE EARLY PERIOD OF NEW CORN
Showing the immature kernels in progress of developme

To begin with it was necessary to ma
exhaustive study of the chemistry of the
kernel. Accompanying this study, ca
equally exhaustive investigation into
ing, with the demonstration that the
plant may be bred as accurately, with as
adherence to type, with as complete de
to pedigree, as may prevail in the bre
of any animal. This breeding is done c



POLLEN GRAINS OF CORN
Enlarged about 200 times

by selection, though it may be done by artificial pollenization.

When the best kernels are selected they are given the most searching sort of chemical analysis. When the chemical composition is determined, kernels are planted from this ear for a progeny of the same general character. The growing corn is kept separate from other types. Year after year this method of selection breeding has been carried on until results have been worked out in fields sufficiently large to prove the entire feasibility of the work.

It was known that protein was a non-essential in the manufacture of certain products and had to be disposed of. So a corn was created in which the amount of protein was very small. On the other hand, the corn raised for food was bred to produce a

THE EMBRYO OF THE CORN KERNEL
Before it is fertilized by the pollen grains, without which the kernel would not develop

age of protein. Corn oil has f the most valuable of the many of this cereal. Immense quanti- manufactured in the United then exported to the Spanish, French cities where the largest live oil are put up for the Ameri- Each year corn oil is applied to ty of uses,—as in the manufac-

from the germ that the oil is made. Let illustrate in a simple tabular statement was done simply by breeding by selectio

Year	Oil in Seed	Oil in Crop
1896	....	4.70
1897	5.33	4.73
1898	5.20	5.15
1899	6.15	5.64
1900	6.30	6.12
1901	6.77	6.09
1902	6.96	....

A CONTRAST IN CORN

s hanging, on the floor, and standing, is self-fertilized; that to the left is from ordinary fertilizing—by the wind—the amount of seed being used in both cases

s, paint oils, lubricating oils, so on. So it was determined hould be bred having a higher oil. It was necessary to create, rn with a larger germ, for it is

Along with this went a series of test show that corn could be produced very in oil. The results of the attempts to duce the oil by breeding show that the in the crop decreased from 4.70 per cent

A DECORATIVE USE FOR CORN

Both pictures are made in every detail from corn, without artificial coloring

1896 to 3.43 per cent. in 1901; while the seed selected decreased from 4.04 per cent. in 1897 to 2.99 per cent. in 1902. The oil of corn is worth at least five cents per pound. It is estimated that for every per cent. of increase the corn containing it is advanced in value by at least five cents per bushel,—in fact, one manufacturing establishment using about eighteen million bushels of corn a year, offers to pay five cents per bushel more than the normal price for each per cent. of increase i oil. In the table above given it will be note that the corn bred has already increased in oil 1.39 per cent., this increase being made in the open field, taking its chances in the normal conditions of the average field of grain.

Kernels were selected for breeding for a high amount of protein. They were planted in isolation and their progeny after them year after year. In 1896 the crop had 10.92 per cent. of protein. In 1901, 14.12 per cent. In 1897 the seed selected for the following crop had 12.54 per cent.; in 1902 it has 15.32. To reduce the amount of protein, seeds of low and still lower percentages of protein were planted, with the result that the per cent. of protein in the seed of 1897, which stood at 9.03, has been cut down to 7.58, while the crop it-

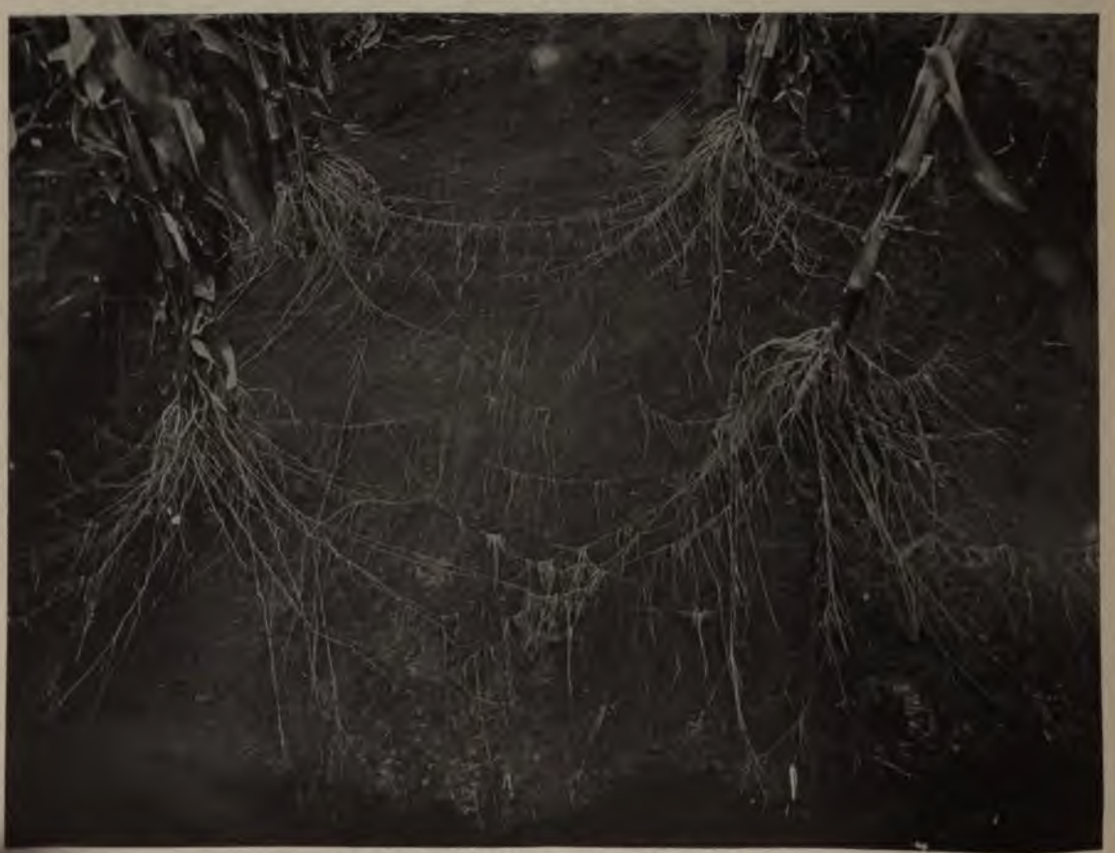
DETERMINING THE AMOUNT OF STRENGTH PRODUCING MATERIAL

AN ILLUSTRATION IN DEEP AND SHALLOW GROWING OF CORN

Made by pruning the roots to different depths and noting the harvest per acre

Six inches depth, thirty-eight bushels; four inches depth, forty-five bushels; two inches depth, sixty bushels; not pruned, sixty-two bushels

PROFESSOR C. G. HOPKINS
Under whose direction the work of breeding corn is in progress



THE ROOT DEVELOPMENT OF CORN PLANTS
These frequently go down five feet for water. A single acre of corn will pump up from 300 to 400 tons of water in a single season

self shows a reduction of 1.58 per cent. The highest amount of protein in corn yet reached in these investigations is 16.11 per cent., and the lowest, 6.66 per cent. In other words, there is a difference between the highest and the lowest protein-bred corn of nearly 10 per cent. of strength-giving material.

Given a certain demand,—be it for syrups, for starches, for oil, for food of any one of very many types for any one of a large number of by-products, and the corn is at hand to supply this demand. Two years ago a Seed Corn Breeders Association was formed in Illinois which is providing the farmers with the type of seed required. What is known as a Corn Register has been established in which the pedigrees of the corns are registered precisely as the pedigrees of animals are recorded. It requires nearly a million bushels of corn to plant the State of Illinois for a single crop. The members of this Association are held in strong pledge to breed only the best types of corn. Each member of the Association, for example, must test his seed before sending it out to the brother farmers and if less than 90 per cent. fails to sprout, he must reject it all.

The average yield of the corn farms of the State of Illinois promises to be advanced by ten bushels per acre, through the introduction of newer types of corn. Along with the breeding for definite ends has come the breeding for increased yield. A well-known farmer in the southern part of the State of Illinois has been testing the new seed on his own farm. He bought forty dollars' worth last year and planted it by itself. Keeping a careful record of its yield, he found that the corn yielded fifteen bushels per acre more than the corn grown alongside of it from the old type of seed. His net profit from his $40 investment in seed was $840.

If the general average of the corn crop of this State of Illinois alone shall be increased by ten bushels per acre through the introduction of this new corn,—it will mean an addition to the general wealth of the State of at least $50,000,000 per year, allowing sixty cents per bushel as an average price. Such an increase over the whole country would mean an increase in national wealth of about $480,000,000 each year.

Food production is only one of the many functions of corn—the by-products lead into curious avenues. In time of naval battles this plant will be able to prevent the sinking of ships riddled with projectiles. By tremendous pressure the pith of the corn stalk, a light, yellowish-white substance, mainly composed of cellulose, is compressed into exceedingly small compass. A pinch of the compressed fibre placed in a drinking glass and saturated with water suddenly swells to the full capacity of the glass. It will absorb about twenty-eight times its own weight of water. Between the plates of the great battleships this compressed pith is now being placed. Should a projectile pierce the sides of the ship, it must pass through this wall of compressed pith. Immediately upon the inflow of the water the wound closes up, merely by the swelling of the pith.

This same pith is particularly valuable, also, in offensive warfare, as it is used as a base for the manufacture of explosives of high potentiality.

Cellulose is, of course, the basis of paper. Fears have been expressed that the spruce forests of the United States and Canada, which hitherto have supplied the main stock of cellulose, the basis of the paper trade, will not hold out. Just now, in the Southern sugar-cane producing States, experiments are under way to prove that begasse, the refuse left after the cane crushing, is invaluable for paper manufacture, while tests have already been made, with a very satisfactory outlook, to show that the cellulose of the corn plant may, as a basis for paper manufacture, become one of the plant's most valuable by-products. The stalks, leaves, and husks are also used for paper-making, and for fibres which can be woven into various kinds of fabrics.

Immense quantities of corn are now manufactured into syrups and starches. In the manufacture of the former, five grades are now produced. In the manufacturing of these come other by-products in the way of concentrated animal foods, made from the protein and the germ, which, in such an establishment are deterrents rather than aids. Five kinds of starches are made and in their production are developed five grades of dextrine, five grades of grits or foods in the breakfast food line, together with three grades of gum for use in adhesive pastes, or for use in the manufacture of confectionery.

listance and beat up at last upon the far line of the sky, a scene of surpassing est. There are corn farms in Illinois ng nearly a hundred thousand acres r a single general management. A e acre of this wonderful plant pumps up the soil from three hundred to four red tons of water in a single season. A e week's growth is recorded of eighteen one-half inches; a growth of five inches been known in a single day. The total surface of a single mature corn plant is ty-four square feet.

e corn plant is no doubt of American n. It was known among the native ns as far back as our history reaches, when, in 1879, some of the ancient mounds io were uncovered where the remnants pre-historic race were buried, corn was l in complete preservation. This native , which yearly exceeds in value all our cereal crops combined, is being sepa- by scientists and the farmers who carry teaching into common practice into divisions, and to each division is being new growth and capacities for wealth.

UDY OF THE ED"

ENT TYPES OF THE E AND FRAUDULENT Y, CHIEFLY MONEY

RGYMAN

one year there were just six hundred s. In every case the request was either lvice or for money. In each of these roups, to be sure, there were cases which not be commented on either here or else- . These requests for my advice were st, or the need for money was pressing. irst are my personal charges, and the ng of their burdens is a part of every n's office; the second are the sort of poor ve have with you always, and an ex- of their errands would be vulgar. So st one hundred must be ruled out.

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But there remain five hundred others. These may be characterized as either "freaks" or frauds. The methods of one hundred were queer, and of the remaining four hundred, questionable. It is of these I wish to tell.

Chief among the queer were inventors seeking counsel about patents. Of these I note a dozen—including a woman gone daft on perpetual motion, whose theory was this: Everybody knows that a large clock will run eight or more days. Now "perpetual" merely means limitless time. If you build a strong enough clock it will run always. The motion resulting will thus be perpetual.

Next were those with books to publish. I have been consulted with regard to twenty manuscripts, the range of their titles as wide as their contents were shallow. One was a projected Cyclopædia of Armenian fairy tales. And finally came a man who had a literary idea to patent. He wished to sell his interest in a patent he hoped to get on an idea that he told me was original. It was an application of the gas meter to the fixing of rates to be paid by editors for modern works of fiction.

Then there were requests for me to use my influence to secure something or other—from a janitor's position to a railroad pass across the continent. The last man I recall confessed to having broken out of jail in West Virginia. He had come to New York, was pursued at that moment by two detectives and he wished me to help him on to Canada.

Another dozen have asked advice because they say that I am a "man of mind," and therefore like themselves. One was a metaphysician, faith-healer, mind-reader and what not, who confided to me that her bedroom was so full of thought-waves that she could not sleep at night and she wished to know whether it were better to expel the thought or to move the bed. The last was a man who contemplated suicide. He said that he was a good man and an old man, and since all his friends were "over there" already, naturally looking for him, he feared that if he did not go soon they would think he had gone the other way.

Some even find their way here who are out-and-out insane. The most complacent of these was a young girl who imagined that she could not sing because Emma Eames had stolen her best voice. The most violent was a man who rushed in one day, wild-eyed and disheveled, and declared that he would shoot me if I did not call a meeting, there and then, of all the Cabinet and get him back his war portfolio. I pacified him and sent the sexton off to find the Cabinet—who promptly arrived in blue cloth with brass buttons.

But, alas! the line of demarcation between this class and a larger class is not sharply drawn: for some very silly folk are still at large. One of these has paid me seven visits and each time has assured me that our missions are identical. He has had himself elected Chief High Something of Amalgamated Enterprises for the Propagation of the Golden Rule. Incidentally, he wishes to be divorced from his wife.

Last of all are the calls I have from other clergymen: I mean retired ones. They come on errands all indicative of reasons for their status. Some are founding foolish enterprises; some are forming lecture courses; some are selling things. Perhaps the climax of absurdity was reached by one whose tale was this: He had discovered in a Western pastorate that of "the two chief sins of modern Christendom," gambling and profanity, the first was induced chiefly by card-playing, the second by spring house-cleaning. Of an inventive turn of mind he had secured two patents. He had given up his charge and was now introducing the inventions. The first was a so-called educational game, a sort of improved "tiddle-dee-winks;" the second was a mechanical device for putting up stove pipes.

So much for the second hundred. Now for the four hundred others. The route of their appeal is often circuitous, but in the end it always comes to "Lend me five shillings." First are those who want to borrow. Of these there have been half a hundred. Some have asked for money for queer uses; some have been queer in the way they asked for it. For example, a man out of work had a scheme to buy shamrock at wholesale and to sell it at retail in bunches on St. Patrick's Day. Sometimes they have queer ways to seek sympathy as, for instance, the tramp who lamented that he was dirty and asked for a quarter to buy soap, a pocket mirror and a comb. Sometimes they think by one ruse or another to enlist my interest. For example, one man one cold day assured me that if he could get a dollar he could buy a shovel and get work removing snow. Or they have some queer security to

give. One old man of the shabby-genteel type wanted a loan of $50 on a violin that he said was worth $1,000. He was so importunate that I engaged a music dealer to examine it and his report was—"Dear at fifty cents." One "widow who troubleth me" persistently wants to borrow money on the diamonds of her daughter whom she calls "the duchess." A Persian calling himself Hudu wants to part with Oriental rugs for $700 and is sensitive upon the subject of pawn-shops. A cab-driver, a waiter and a "useful man" have each asked for loans, giving in advance a lien on their month's perquisites. And one man came to borrow money to be repaid as soon as his young daughter had grown old enough to enter the profession which her mother had abandoned—posing *tout ensemble* for a club of artists.

Next comes a group best called solicitors. Of these there have been fifty more. They ask for money to endow schools, hospitals, asylums, institutions, libraries, and what not, or they are treasurers of societies eager to reform the Mormons, to civilize the Indians, to feed the Cubans, to educate the Negroes, to clothe the Filipinos, etc. There are also paid solicitors for small concerns who in a year raise almost nothing in excess of their own salaries, while last are the bogus solicitors. Of these, perhaps the worst are lazy, worthless, high-class Englishmen who, having by nature the face of an ecclesiastic, don a cassock vest and so impersonate with ease the clergy of the Episcopal Church. It is well known that many of these men have once been choir boys.

There still remain half of the entire six hundred who can all be called "people with a story." Of all these stories, six typical ones will form outlines into some one of which every individual case may readily be fitted.

First, the man who lays claim to respectability—is well dressed and even better spoken, who has come to New York from somewhere, on his way somewhere, and is in need of money. He has been cheated, tricked, waylaid or robbed, or even disappointed in the receipt of money from home. He needs enough for his hotel bill, or he asks for money to pay carfare on his journey, or he wishes to a check cashed. The reason he comes is that he knows someone whom I know ne distant town, a relative, a fellow- or college classmate. The care with which these people have compiled details in many cases is incredible and oftentimes their stories would deceive the very elect.

One of these had come from Boston to New York on his way to Chicago and he needed a ticket. I telegraphed to his "brother" who replied: "Never heard of such a man." Another, a woman, pretty, well dressed, the wife of a navy officer, discharged at Newport, wanted railway passage for the two of them to California, because complications had arisen with the War Department and the officer's past month's salary had been withheld. She promised at last, reluctantly, to send the husband to see me—but he never came. A week later I recognized the woman, in questionable company, on the street. Still another, a man, who had his pocket picked, had pawned his watch for $30 to pay his hotel bill, but who was well dressed in traveling clothes, bore a letter on the business paper of a banking house in Philadelphia and wanted a check for $50 cashed. The check, I learned to my chagrin, was forged.

Second is the man, usually young, who confesses crime and makes of his confession the basis of a plea for help. He says in the baldest, boldest terms—"I was drunk and lost my job." His feeling seems to be "I must be aided back upon my feet"; his manner is—"It's up to you." Or he has come out of jail and finding every man's hand against him, seeks relief within the sanctuary. His language oftentimes is pitiful indeed, but his mood is never satisfying. One young chap told me with bravado that he had come from some town up the State to act as swindler for a bucket shop. The shop had closed—employer had gone bankrupt—he was stranded. Another had forged a check and was about to be found out. Someone must intercede for him—the shock would kill his mother. One youth, a veritable prodigal, had run away from home, had come to town and put up at an expensive hotel; and his bill at last was due. He knew that I knew his father—would I send him home? Another had come here to college and made an unwise choice of a room-mate; and the conjunction of wine, women and song had wrought his ruin. Another had had that old experience so familiar in all New York boarding houses, of being robbed by a scamp that he had taken up with. And so on and on. These stories I believe

were all true; but even then what? I have helped at different times a hundred such, but not one of them ever turned out well thereafter. They were all of one type:—

> "When the devil was sick, the devil a monk would be;
> When the devil got well, the devil a monk was he."

Third, there are those who base their plea upon the fact that they have once been far up in the world and now for some strange reason are far down in it. They all look longingly back to the time before they "met reverses" and as distance lends enchantment they embower their past with glory. Among these are descendants of that "old New York family," that "wealthy Southern family before the war" and, most helpless of them all, high-class foreigners far from home. Invariably these last talk of having "come out to the States," and cannot see the reason why those "States" have no position waiting for them. More than all others these are inadaptable. They cannot adapt themselves to new conditions and they are illogical in the extreme. One of them, for instance, used this logic: His son was lost on the *Marcy*. The *Marcy* was an English ship. The English church more closely than all others was related to the Episcopal church. Therefore, Q. E. D., this church was his recourse in time of trouble. Another was a literary aspirant, "a lecturer," he claimed, "of no mean promise," but now, for the time being, a book-agent. "Alas, however," he explained, "in this as in all of the learned professions many are called but few are chosen."

Fourth, there are those who ask not for money outright, but for some position of employment. It amounts in every case to the same thing, for positions they could get they cannot fill, and *vice versa*. These make up that great host of would-be teachers, tutors, governesses, watchmen, chaperons, companions, etc. They are persons who have never in their lives been trained to do one thing, and therefore they think they can do anything. The work they seek is easy work and what they cannot understand is that such positions are luxuries. Among these was a converted Catholic priest who wanted a job as detective, while another, a German, told me naively that for thirteen years he had sat on a bench at a gate as night-watchman: when the factory closed they had taken his bench out from under him and he "had no place yet to sit down still."

Fifth, there are those who have long been out of work, are in a pitiful state, as indicated by their dress, but who have found a job at last and can go to work at once if they can get a dollar to redeem their tools from pawn or their linen from the laundry, or to pay their fare to some point where they say that work is waiting, or to make a deposit, or to join some union. Usually they have been sick—have just come from the hospital—have a family in need—will soon be dispossessed. A curious lack of inventive ability and a scantiness of versatility are shown in the way these details are rehearsed repeatedly verbatim. I have heard that identical story as many as seven times in one day. Even the very forms of disease from which they had suffered in the hospital are all stereotyped; the favorites are pleurisy or heart disease or others such as show no symptoms.

Last of all is that great crowd of "rounders," professional beggars, men with red noses and blotched faces, women with marred morals and disheveled appearance — all with no money. They are known to agencies, societies, missions, bureaus and associations by the score; for of such is the kingdom of free lodging-houses.

Of all the stories of all these six types I should say that about half are false in every item and that the persons telling them are utterly unworthy. The other stories too are often false in the main outline, yet the condition of the authors is as pitiful as if the special story were authentic. The question then remains: What can one do for them?

In determining the way to treat each case, the first test is in the kind of testimonial brought. They always have these and they always spread them forth, each the especial kind peculiar to his group. The first class wishing only to establish grounds of intimate acquaintance, use mere verbal recitation of facts to prove acquaintance with my distant friend. The second, too, use little more than oral recitation. The third have documents and deeds with crests and arms and monograms to show their ancestry and to prove their present penury. Those who seek positions have almost everything—except a reference. The sick man out of work comes with a

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when out of a job proceed upon the theory stated by a man who told me that he had walked in from Paterson, N. J., to spend three days in New York, even though he meant to go back at the end of that time to another job of work in Paterson, "Because," he said, "in New York you can't quite starve: they don't dare let you." Thus it is that there are 40,000 men in the cheap lodging-houses of the lower East Side, and there are 20,000 others living in cheap "furnished rooms."

Of the half whose stories are true, the stories themselves sometimes tell a tale. When you read between the lines it is easy to discover some special source of difficulty. This may be nothing more or less than laziness; it may be lack of opportunity; it may be base rascality; it may be sheer incompetence; it may be the effect of life under conditions which few who have not lived it can realize. One who has listened for a year to stories from these people has learned many things about some common forms of daily work which create sympathy because of the hardness of these conditions: for example, the case of a cab-driver who contracted pneumonia sitting for twelve hours in the rain; the case of a painter who suffered from blood-poison; the case of a longshoreman (whose work is perhaps the most brutal of all the work that human beings ever do) who had frozen off one foot and both his hands. One thing that I have seen is the horrid condition of loneliness of the life of the average inmate of a so-called "furnished room"; another thing I have learned is the absurdly small amount upon which people actually go on living indefinitely from day to day when out of work; while still another is the sordid condition of life in the city's ten-cent and fifteen-cent lodging-houses. Besides, one is surprised to find the number of people who have lost estates through the villainy of lawyers, the number of people who have furniture in storage, the number of working men in New York who have neither home nor family and the number of people who live from hand to mouth from week to week and never in their lives have had a bank account.

Last of all the things that one learns and that most of all surprises him is the relative number of persons of different nationalities who ask for aid. The revelation in this matter is enough to give those pause who cry so loud against foreign immigration. For of all those who have come to me by far the largest number were poor, native Americans. Next to these were Irish; next to these were English; next were Germans; and, either last of all or not at all, the members of those very races we have always most decried.

There must, however, be real causes why such people are in such a state, no matter whether what they tell be true or false. Perhaps a few of the more important causes are these: first of all, some do it merely be cause they like the game; the part they play is an actor's part—the element of conquest and uncertainty being as fascinating to some natures and approaching in the pleasure of it all the joy of gambling. Of the young men who call, some are merely prodigals off on a spree; their stories are true and telegrams sent to their parents will often bring back the reply—"He is mine; send him home." Sometimes again the answer to the same kind of a telegram will read—"Know him, always was a ne'er do-well. Give no more money. Only cure for his state is to let him suffer."

Of course, the thing which most of all has wrought downfall is the use of liquor and, in a surprisingly large number of cases in this same group must be added the victims of opium, morphine, cocaine and other drugs. But last of all is that large class who are nothing more or less than lazy. Of these the most outspoken was an Englishman who came to me and, in his broadest brogue, explained that he wished me to use my influence to get him in an hospital. He had made an application in each one of seven hospitals within the city limits and in each case he had been unable to persuade the doctors that there was anything the matter with him. He looked well and hearty and I asked him what his trouble really was. He explained that he was tired and wanted for a week to lie in bed and to rest.

What shall be done with these people? The clergy confess their perplexity. They realize the pressing need for something to be done, and quickly. The problem is becoming so large they simply cannot cope with it. Perhaps more people have approached them during this last year than upon any year before, and that in the face of the fact that times were never quite so good and there never was so little reason why men should be in distress.

THE HIGHEST OF ALL RAILROADS

THE ENGINEERING PROBLEMS OF THE OROYA RAILROAD OF PERU

BY

E. C. ROST

Illustrated from photographs taken by the author

TO leave the hot tropics, eight degrees south of the Equator, at eight o'clock in the morning and arrive up among perpetual snow and glaciers at four o'clock in the afternoon of the same day, is a feat that can be accomplished only on the Oroya Railroad in Peru, known as the Ferro Carril Central del Peru, without doubt the most wonderful railroad ever constructed. It was built by Americans, Messrs. Meigs and Thorndike. The total length of the line from Callao to Oroya is one hundred and thirty-eight miles and the cost was forty-three millions of dollars ($43,000,000). In the morning you wear the thinnest of linen, in the early afternoon you shiver in the heaviest of overcoats. Passenger trains leave but twice a week each way. We steamed slowly out of the Lima depot at eight o'clock in the morning. Our train consisted of four cars, built and patterned after the cars in use on our great trunk lines, and was drawn by an American locomotive.

At Chosica, thirty-three miles from Lima and two thousand feet altitude, we come to the first V—a switch system introduced on this line. The locomotive draws the cars over one section, then runs on to a V-switch and pushes the cars over the next section. The entire road to the summit being a four-per-cent. grade, the great elevation is gained in this manner without traveling round and round the mountains to make the ascent. This zigzag switch-back system is used over the entire line. We pass a few unimportant stations and arrive at San Bartolome, forty-seven miles away and of four thousand nine hundred and fifty-nine feet altitude; here are several sidetracks permitting trains to pass each other. Four miles from here we cross the famous Verrugas bridge, in itself one of the greatest of railroad bridges, and built in Philadelphia.

Skirting a precipice where we see the Rio Remac thousands of feet below us, we stop at Matucana. The walls of the Andes tower up far above the clouds, and between them there cuts a ravine or a bottomless abyss. How man ever surveyed such a road seems beyond solution. In some places on these all but perpendicular walls there is no foothold for even an animal. Here the surveyors were slung over the cliffs and held suspended by a rope from above, with a rocky floor thousands of feet below them. It has been said that Vesuvius, if it were dropped into some of the crevices here, would be practically lost to view.

The engineering problems accomplished are amazing. In one section the road-bed was once the bottom of the raging torrents of the Remac before a tunnel was constructed permitting these volumes of water to pass below.

After passing San Mateo, a modern American-built steel bridge spans the torrents of the river Remac, the bridge spans suspended from the opposite mouths of two tunnels. A little farther on is a narrow pass with such huge walls towering above us on either side that the sky is shut out, giving an effect similar to that within a tunnel, when the entrance becomes smaller, and finally cannot be seen.

Toward the summit we look up toward white snow and green glaciers, then—although we are near the Equator—all is hidden by a sudden snow-squall which in a few moments passes over us.. A sudden turn in the road reveals the entrance to the Galera tunnel. Half way through this one and one-half mile tunnel we pass the place where the acme of railroading has been reached, fifteen thousand six hundred and sixty-five feet in a perpendicular line above the level of the sea or one thousand four hundred and forty-five feet higher than the summit of Pike's Peak in Colorado, on a level with the Summit of Mont Blanc in Switzerland.

The real interest centres, however, in the return trip, if one is so fortunate as to fall into the good graces of the superintendent—and he is a most hospitable person who, in my case, not only sent the American road-master with

THE HUGE WALLS TOWERING ABOVE ON EITHER SIDE"

me but also furnished me with a "hand-car" which from Galera tunnel runs by its own momentum to the Pacific shores; this gave us the opportunity of stopping whenever we chose to make photographs. We left the Atlantic side of the tunnel in a blinding snowstorm, our car being pushed by an Indian to the centre of the tunnel where the descent begins. From here we rushed through darkness and soon found ourselves at the Pacific entrance of the tunnel and the weather conditions entirely changed. Here was a bright sun, crisp air and an azure sky above. We were soon overtaken, however, by several snow-squalls and for that reason I later on made a second trip. Then it was that I enjoyed the most remarkable experience I ever had, our car making in some places easily sixty miles an hour.

One can coast from the tunnel one hundred and six miles to sea level, dashing at lightning speed through dark tunnels, over a bridge, then around curves so sharp that only a few feet ahead are seen at one time, then skirting the precipice at the foot of which dash mad torrents, the scenery dashing by as if enveloped in a fog. A stone may have lodged on the road-bed, a goat or llama may be strolling there. and should your little car strike

IN THE HEART OF THE ANDES
One of the many tunnels may be seen at the left

WITHIN THE MOUNTAINS

Looking out from one tunnel into the open, and through a tunnel beyond into the farther open air

such an obstruction it must be derailed and perchance rolled down some abyss.

From Oroya, the Eastern terminal of the road, one continues his travels on mule-back, the only method of transportation. Some eighty miles from here and some four thousand feet higher up in the world are the famous Cerro de Pasco mines, the highest mining establishment on the globe, and where are the very headwaters of the mighty Amazon. Concessions have been granted to continue the railroad from Oroya to the Pasco regions and surveys have been made.

The object in building the Oroya road was to carry the traffic from the eastern slopes of the Andes to the sea coasts, as well as immense quantities of various ores from different points along the line. The road is of regulation broad gauge and from the sea coast to the summit an even four-per-cent. grade; the fuel used is petroleum.

Certainly the Oroya Railroad is a moving panorama of the combined wonders of nature and remarkable engineering.

WHERE THE RAILROAD RACES WITH THE RIVER REMAC

WORLD-WIDE LESSONS FROM KANSAS FARMS

HOW THE AGRICULTURAL EXPERIENCE OF A SINGLE STATE HAS HELPED FARMERS ALL OVER THE EARTH BY THE INTELLIGENT USE MADE OF IT BY THE SECRETARY OF THE STATE BOARD OF AGRICULTURE

BY

CLARENCE H. MATSON

THE fame of Mr. F. D. Coburn, the Secretary of the Kansas State Board of Agriculture, is world-wide among persons who take an intelligent interest in farming. He is as well known in several European countries as he is in many parts of the United States. His books are used in Australia. Inquiries come to him from all parts of the world. His name signed to a crop report is a certificate of accuracy, and it has caused grain markets to fluctuate.

When Mr. Coburn took the position which he now holds it was, to a great extent, a clerical office. He had himself, for thirty-six years, been a farmer, and the mere collection and publication of statistics did not satisfy him. He put new ideas into the office. He knew the practical side of farming, and he began to collect material which would give aid to the farmer in his every-day work.

Soon after he became secretary there was a shortage in the corn crop all over the country, but there was an abundance of wheat. The general feeding of wheat to live stock was a new idea, and the farmers wished to know whether it could be done profitably and what would be the effect on the stock. Mr. Coburn secured the names of perhaps fifty good farmers who had tried feeding wheat and he obtained a statement of the experience of each. These, with a number of strong articles by specialists on kindred subjects, he published in a pamphlet for free distribution. This marked the beginning of a series of quarterly reports on subjects of interest to farmers which have come to be known as Coburn's "Red-Line" series. The knowledge gained by the farmers of Kansas from this first report on the feeding of wheat to farm animals was worth tens of thousands of dollars to them.

Ten years ago alfalfa was only slightly known east of the Rockies; today it covers thousands of acres in many of the Western States and is one of the most profitable crops raised. Mr. Coburn did it. He knew from personal experience the value of the plant. He knew that it yielded two, three and four crops of the finest hay every summer, besides a valuable crop of seed. He knew that its roots penetrated to a depth where dry weather could not affect them, thus making it an admirable crop for those regions where the rainfall is uncertain. This information he published in another pamphlet, together with the experience and the advice of a number of pioneer alfalfa growers. The result of this pamphlet has been an immense increase in the alfalfa acreage, not only in Kansas but in all the Western States, and alfalfa has added millions of dollars to the wealth of the farmers. Last year many farmers in Kansas cleared from $40 to $70 an acre from their alfalfa fields. Since the alfalfa pamphlet was issued Mr. Coburn has followed it with a more exhaustive copyright work on the same subject.

The production of beef in the West received a considerable impetus and its quality was improved by the publication by Mr. Coburn of a pamphlet which he called "The Beef Steer (and His Sister)." He spent several years himself in cattle-feeding and he understands it from practical experience. He supplemented his own knowledge by material gleaned from men of long experience. He edited this material and assured himself of its accuracy. The pamphlet told what kind of cattle are best for beef, what kind of feed to give them to produce the best results, where the flesh should be put on the animal

MR. COBURN AT HIS DESK

to bring fancy prices, how to do it, and the reasons for all these things. This pamphlet gave new ideas to thousands of farmers who feed cattle for beef in a small way and enabled them to produce, with the same amount of feed, high-grade steaks worth from fifteen to twenty-five cents a pound in a normal market, instead of tallow and low-grade meats worth only three and four cents a pound. The high-priced beef lies along the animal's back, and anyone can understand that a broad-backed animal, which has utilized its food in increasing its aggregate of sirloin and porter-house, is far more valuable than the narrow-backed animal of perhaps the same weight but which has utilized its food in the production of tallow. Mr. Coburn encouraged the farmers to produce the broad-backed kind.

These are only a few of nearly a score of Mr. Coburn's works. They are prized by farmers because they deal with the practical side of farming instead of the theoretical. They mean dollars and cents to the farmer. They do not deal with generalities but with practical details. This is the difference between Mr. Coburn's work and that of many other agricultural secretaries.

Every three months the Kansas secretary issues one of these hand-books on some agricultural subject. A few of those issued thus far are "Corn and the Sorghums," their cultivation, utilization, and value for grain and forage; "The Helpful Hen," her management and the marketing of her products; "Cow Culture," devoted to practical dairy interests as adapted to the average farm; "The Plow, Cow, and Steer," explaining practical methods of cultivating the soil and utilizing farm and animal products so as to bring in greater returns to the farmer; "Pork Production," devoted to the rearing and marketing of the Kansas hog; "The Modern Sheep," a treatise on the advantages and possibilities of sheep husbandry in Kansas; "The Horse Useful," devoted to the interests of those who breed, care for, use and appreciate the horse, and to the horse himself—his improved breeding and more humane treatment; "Forage and Fodders," a discussion of the production, uses and values of various forage plants; "Dairying in Kansas," a more extensive treatise on the dairying industry than "Cow Culture"; "Short-horn Cattle" and "Hereford Cattle," each devoted to the history, breeding and merits of these two breeds.

Besides these, Mr. Coburn is the author of two copyright works. One of these, "Swine Husbandry," was written thirty years ago while the author was living on his Franklin County farm, where he had access to little more than his own observations; yet the publishers of this work assert that "from the date of its first publication it has had no successful competitor and has maintained its place as a standard authority upon the subject which it treats." Its value lies in the practical knowledge of the author. The other is a work on the cultivation of alfalfa and kindred plants, already referred to.

Mr. Coburn's latest work is devoted to wheat-raising, and the manner in which he secured the matter contained in it explains why his department has attained its reputation for accuracy. First he wrote to the county treasurers in all the wheat-producing counties in Kansas, asking for the names of a half-dozen of the largest and most successful wheat-growers of the county. To each of these he submitted a list of questions covering the whole subject of wheat-raising, including cost, methods and profits. When these questions were answered, the answers were arranged into straightforward statements, signed by each wheat grower. Each man's statement was then returned to him and he was asked to make any additions or corrections in it that he wished to make. The best one hundred and twenty of these statements form the body of the treatise on wheat-raising. It is the most authoritative work on the subject that could be compiled. It contains, besides a great fund of other kindred matter, the experience of one hundred and twenty men who have, for the past twenty or thirty years, raised from one hundred acres to fifteen thousand acres of wheat each.

Thirty-five years ago, Mr. Coburn went to Kansas. He walked across the Missouri River on the ice one February day, and made his way to Franklin County, where he began his life as farm hand. Since then he has been at work. He could not enjoy himself if he were idle. He spends twelve or fourteen hours a day at his desk. If there were a labor union of agricultural secretaries he would

be disciplined for working overtime. He was born in Jefferson County, Wisconsin, fifty-six years ago. When he began his work as a farm hand, his wages amounted to twelve dollars a month. His duties were to care for cattle. This was the beginning of a practical knowledge of agriculture and live-stock husbandry, from which the farmers, not only of Kansas, but of every other State in the Union, are today reaping great benefits.

Three or four years after coming to Kansas he bought a farm of his own, digging out of the soil the money to pay for it, and there he lived tor twelve years, accumulating by observation and experience the knowledge which was destined to make him useful to mankind. In 1880 he was called from his farm to Topeka by a telegram to do some work for the Kansas State Board of Agriculture, which had been attracted by some of his writings on farm topics, and his work was done so well that soon afterwards he was unanimously elected secretary of the Board. But he did not then remain long and he became the editor of a live-stock journal. Twelve years later he was recalled by the board to become its secretary and executive officer, and at every biennial election since he has been unanimously reëlected.

It is one of his hobbies to give his mail his personal attention, and that, too, as soon as it arrives. He works very rapidly and he enjoys it. I sat by his side one day making a note of the varied requests which a single mail brought to him. The first letter was from a Mexican. It was a typewritten communication asking for a work on dairying. It contained a sum of money and an offer to send more if necessary. The money was returned. The next letter was from a Nebraska man who expected to move to Kansas and wanted advice about it—likewise literature. He got it. The next half-dozen letters were from Kansas farmers. Each wanted a report on a different subject. Most of them asked for personal advice. The next was a neatly typewritten letter from a Maryland man, cordially thanking Mr. Coburn for one of his reports. Five or six requests from Kansas farmers came next. Then came a letter from a man who wanted himself to give advice how to conduct the State Agricultural college. Another was from a young man in Mexico whom Mr. Coburn previously befriended. A number of writers wanted seeds, but the Kansas department does not deal in seeds. Another wanted free trees sent to him. He wrote that he could use two thousand of a certain variety, and he gave minute directions for their shipment. Another wanted a recipe for killing prairie dogs, and still another would like to know how to raise Angora goats. All these letters which required answers Mr. Coburn laid aside for his personal attention; the rest he gave to his assistant. The mail is all attended to before the day's work is done.

Mr. Coburn will not make a crop prediction, although he is better qualified to do so than any other man in the West. He will make no guesses or estimates, and he gives out crop figures only after the grain has been threshed and the bushels counted. He has a system of crop reports, however, which are greatly sought after and are eagerly watched for by all who are interested in the subject, and especially by speculators. They report not estimates, but conditions. If Mr. Coburn issues a report that wheat in Kansas is in an unusually fine condition, the markets of the United States, and probably of Liverpool, will drop unless the report is offset by adverse conditions elsewhere. If he says that the condition is poor in Kansas, the markets will rise in anticipation of a shortage—so great is the faith of the grain speculator in his reports. He prides himself upon their accuracy. He has two key words—work and accuracy. He has on his list of correspondents all of the leading farmers of Kansas, from thirty to forty in every county. Whenever he wishes a report on a certain subject—wheat, for instance—he submits a list of questions to all these farmers, asking for detailed information about wheat conditions on a certain date. The answers to these questions are carefully compiled, and from these opinions Mr. Coburn makes his report.

His career has been one of work—thorough, systematic, helpful, conscientious work. One of his associates once said that his idea of recreation is a little more work, and he instils that idea into his assistants. If the duty of the day does not promptly present itself, he goes after it. Thus he has accomplished much for the farmers of the West and he stands properly high in their esteem.

TEACHING BY CORRESPONDENCE

THE GREAT GROWTH OF THE BUSINESS OF GIVING INSTRUCTION BY MAIL AND THE OPPORTUNITIES IT OFFERS FOR SPECIAL TRAINING IN PRACTICAL STUDIES

BY

RUSSELL DOUBLEDAY

THE great majority of the world's workers are equipped with scarcely more than a common-school education, and are often totally ignorant of the theoretical workings of their own business. Many a trolley motorman knows little more than the workings of his own car, and would find difficulty in explaining how the electricity that propels it is generated, transformed, transmitted and measured. The mines are full of workmen who are absolutely ignorant of the systems of ventilation and water control that keep the underground passages fit for existence.

The crying need for bread for the family has put many a youngster at labor when he should be still working at the three R's. The youngster also lacks perspective and cannot see how necessary early education is, and he gladly avails himself of the first opportunity to go to work.

Public illustrated lectures have done much to supply these partly educated or totally uneducated people with general information, but there is little in them that is specific.

Instruction by correspondence has succeeded better in rounding out the education of those imperfectly equipped and in developing trained workers in special lines.

Education by correspondence can never supplant personal instruction, but it has made it possible to educate great numbers of people who would otherwise be always ignorant of things they would really like to know. The new method of instruction (it is hardly fifteen years old) has become a recognized factor in the business world, and has given an uplift to the whole body of wage-earners. If a workman is studying by correspondence a subject which helps to make him more valuable to his employer, the interest of the latter is aroused and the man's chances for advancement are greatly increased. In fact many firms employing skilled labor encourage their men by offering correspondence-school scholarships at reduced rates and by promising them advancement, to take up courses that will enable them to do a higher grade of work or fit them for superintending positions. The growing business (for instruction by correspondence is a commercial enterprise and unlike most educational institutions is a matter of investment, not endowment) is due to the demand of working people for instruction to fit them for higher positions in the work in which they are at present engaged, or to give them an opportuntiy to get into a more congenial occupation. One of the most important schools, which has the largest number of students on its roll, began through the demand of miners for a fuller knowledge of the working of mines ; from a series of practical instruction articles in a mining periodical has grown a series of correspondence courses that includes almost every branch of knowledge. Almost without exception, however, the courses interest only those who are not seeking an aid to better positions.

The student of a correspondence course requires great determination and perhaps even more application than is shown by one who works under a personal instructor.

All the help of personal supervision and class stimulus is denied to the pupil of the correspondence courses. He studies as a rule alone, has to draw on his own enthusiasm and depend on his own determination and perseverance. The vague impersonal "school" which sends him his instruc-

tion papers and corrects his written recitations inspires scant enthusiasm. A great majority of those getting an education through the mail are workers in mines, in railroads, in manufacturing shops and offices.

It requires great persistence to study alone at a lesson after a hard day's work and without the aid of personal encouragement.

A man a little beyond the enthusiasm of youth had spent his days shoveling coal into an all-devouring furnace; his working hours are from 6:30 A. M. to 5:30 P. M.; the day's work is hard and tiring and the end of it leaves him weary and sleepy. He lacks education and his whole life has been a struggle for existence. Nevertheless he has the determination, the intelligence, the ambition to make something of himself. He subscribes to a correspondence course and after his day's work is done, in his none too attractive home, in spite of much interruption and a weary body, he studies his instruction papers, works out his increasingly difficult mathematical problems, traces out the mechanical charts sent him for his guidance and applies them to whatever machinery he may have chances to examine. He sends in his examination papers when he can, notes the corrections and files them away for reference. By the time he has finished his course and received his certificate from the school, the very appearance of the man has changed; he has the dignity and the confidence of one who knows, and knows that he knows, and he has the equipment of knowledge that makes him much too valuable a man to work at the mere mechanical labor of firing. He soon gets a better position,—work with better pay. This is an actual case. Motormen on trolley lines have become electrical engineers; coal passers, a grade of labor lower than a fireman, have become engineers of standing through the education gained by home study directed through correspondence. Often an entirely new line of work has been entered; dry goods clerks have become consulting chemists; stenographers have become linguists and translators; messenger boys have learned to keep books and conduct cashiers' desks—all through self-education directed by correspondence. Many hundreds of thousands have already completed courses and several hundreds of thousands are now at work.

The subjects taught by correspondence have grown to meet the needs of the students. Languages and drawing, engineering and stenography, business methods and law—all these and the multitude of branches of special knowledge are taught; several schools teach many different subjects, ranging from electrical engineering to languages, while others confine themselves to but one or two. The schools that conduct many different courses are practically several separate schools under one general management; each branch has its own principal and staff of assistants and examiners; thus all courses have the advantage of individual supervision.

The methods of the various schools are much the same, or are as near alike as the subjects taught will admit.

The student specifies which course he wishes to take, and states his knowledge of the chosen subject. In general he is advised to begin at the beginning, because he may be deficient in the rudiments, though, if something is known of the subject, the elementary part may be passed over quickly. The student buys what is called a scholarship, cash down or on the instalment plan (the cost for the course varies greatly, ranging from fifteen to seventy-five dollars), which entitles him to a complete course of instruction in the subject chosen. The first instruction paper is sent him and a blank with printed questions for written recitations, and in some cases text-books: many schools issue instruction papers in the form of pamphlets which may be easily carried about. They contain lessons in the form of rules or condensed information or mathematical problems, which must be studied or memorized. When the student has reached the end of the section or lesson he is expected to forward his recitation to the school; the questions answered in the examination papers are so arranged that the student must apply the knowledge acquired by studying the lesson preceding it. There is no way to compel the student to recite, but the fact is emphasized that only by examinations and correction can the full value of the course be secured, and as the majority of the students take the course for a specific purpose they are glad to get all the benefit possible.

The "recitation" is sent to the instructor of the school under whose particular branch

it comes, is corrected by him not only from the technical standpoint but also for general style, grammar, penmanship and composition, so that the work of the student is kept up to a high standard in every direction. This is especially valuable to the student who has not had the advantages of a thorough common-school education. The recitation papers are returned with the corrections plainly marked and whatever suggestions and special instructions may be necessary for the study of the next lesson. Some schools send the second instruction paper only after the first has been mastered, completing one task before another is taken up, thus insuring a high standard of scholarship.

The directors of correspondence schools claim that everything teachable can be taught by correspondence with the aid of modern ingenuity and modern devices. Provided the student is earnest in his desire to learn, and has the determination to finish the course conscientiously, the instructors guarantee a thorough education in almost any line the student may choose. The determination required to study by one's self is the first requisite: the whole system is based on that. The instruction papers, convenient in form, clearly written, contain the very gist of the information needed and are so arranged that the student is carried onward by easy stages; the written recitations help greatly to fix the essential points in mind and aid the student in writing, composition and punctuation (the examination papers are corrected on every point, whether the subject of the lesson be steam engineering or pedagogy); the instruction papers are always on hand for reference and the examination papers being returned to the student may also be used for reference and point the moral of his former mistakes. All these advantages approach, it is said, the benefits of a personal instructor and the incentive of rivalry; certainly the results obtained seem to bear this out.

Very ingenious are the methods employed to teach some of the subjects through the mails. It would seem to be impossible to teach languages satisfactorily, yet the writer heard, at one school, the reproduction of the voice of a student in California who had been studying but two months. The accent, as far as the hearer could judge, was well nigh perfect, for the teacher could make but two corrections; this student had had no personal instruction whatever, he got his knowledge of the language (German) sound, construction and accent entirely from the instruction books and the phonographic lessons of the correspondence school. A complete phonographic outfit is furnished each student, phonograph with receiver and recorder and lesson and blank record cylinders. With each lesson-book which teaches the student to read the language is sent a lesson-record which, when put on the phonograph, gives a distinct reproduction of the sounds which the student is at the same time learning by sight from the book. By a clever device any letter or word may be repeated till the hearer is perfectly familiar with the whole lesson. When the pupil thinks he understands the part well enough he talks his exercise into the phonograph; this record is sent on to the school where it is listened to by the principal there and corrected by him. The mistakes are pointed out and he is referred back to the instruction paper or to the corresponding record where the mistake is made very evident. Beside the phonograph recitation a written exercise is sent at the same time, so that the student's knowledge of the language both through sight and sound may be correct.

Designing is taught by means of plates of historic ornaments which are copied until the student is familiar with them and his technique is fairly good; then he is required to use his own ideas in the combining of these designs and through entirely original designs. In each case, whether mechanical or freehand drawing, bookkeeping, stenography or civil engineering, the recitations sent by mail are the means by which the school are kept informed of the student's progress, and his interest and the quality of his work are kept up.

It can be truthfully said that education by correspondence, whether for the beginner, for the worker, or for the collegian who wishes to take a post-graduate course, is but just beginning. That it will take the place of schools and colleges is not to be thought of, but there is no doubt that it helps great numbers of people, and especially people who work.

THE HOME OF TRUSTS

HOW NEW JERSEY DERIVES MORE THAN HALF THE STATE'S INCOME FROM FEES FROM CORPORATIONS—THE WORKINGS OF THE LAW THAT HAS ENTICED MOST OF THE GREAT CORPORATE ORGANIZATIONS

BY

S. McREYNOLDS

THE industrial American, whether he desires to mine copper in Michigan, to exploit the Philippines or Porto Rico, to cut lumber in New Mexico, to operate a line of steamers on the Great Lakes, to manufacture steel products in Illinois, to buy furs in Alaska or to run a chain of restaurants in New York, goes to the little city of Trenton, New Jersey, for a charter. So also go the wolves of commerce with a view to profits on the Exchange rather than to legitimate earnings; so also the foxes and the lynxes of trade, who plan the disposition of finely lithographed stock certificates and bonds for "development purposes," which are intimately associated with their own private purses.

The astounding proportions to which this business of charter-giving has grown is indicated by these figures from the official reports:

Year	No. Charters Granted	Filing Fees (approximate)	Annual Franchise Tax
1896	834	$75,000	$707,430
1897	1,059	100,000	707,034
1898	1,103	150,000	830,689
1899	2,181	700,000	950,034
1900	1,987	400,000	1,494,587
1901	2,347	560,000	1,628,958

Even this table fails to give an adequate idea of the income to the State from this source, for the rate of taxation diminishes with the increase of capitalization, and the tendency in later years has been toward the consolidation of corporations that had been formerly chartered. For instance, the year 1901 showed an increase of eighteen per cent. over the previous year in the number of charters issued, while the total capitalization of the companies incorporated was in 1900 $1,296,897,585; and in 1901 $2,907,390,530—an increase of 125 per cent. The revenue derived from these corporations for filing fees and franchise taxes alone (which is exclusive of all taxes on real and personal property) is already sixty per cent. of the total revenue of the State and bids fair in a few years at the present rate of increase to relieve the citizens of all State taxes. It has even been predicted as a possibility that an annual dividend may at some time be paid to the citizens of the State.

The corporation laws of New Jersey prove alluring because they appeal primarily to the promoters, the organizers and the ground-floor holders rather than to the mass of the investors who acquire their stock later. There are important exceptions to this sweeping inference, but on reading the Corporation Act one cannot fail to note that express provision is made for nearly every species of selfish manipulation and tyranny by the directorate and by larger holders.

For instance, the voting power may be limited to the holders of large blocks of stock or to the holders of preferred stock alone, and this reservation need not be stated in the stock certificates. This power enables the incorporators to exercise unlimited sway in the election of the directorate and the determination of the policy of the concern.

The directors have power to make assessments on all stock that is not floated at par, and, if the payments are not promptly met, to sell the stock at auction. In most States the "freezing out" of impecunious stockholders must be accomplished by continuously omitting dividends or by depressing the value of the securities on the exchange until the little holder is forced or frightened into selling. That method, of course, is complicated and permits the holder to receive something for his stock when it is sold. The New Jersey law renders the process simpler.

By making the assessment large enough, the whole selling price may be absorbed by the assessment and the "lamb" left penniless. There is a most significant exception to this; bonus stock which is usually issued to promoters of preferred stock is not assessable.

It is likewise lawful in New Jersey for a promoter to sell his own private property to a corporation that he has been instrumental in forming. This must be done through the board of directors, but the law expressly provides, if the property be taken at an excessive price, that there shall be no appeal from the decision of the directors and they are not personally liable for the loss to the stockholders. Furthermore, if there be a lack of funds to make payment, the never-failing device of a bond issue is at hand. There is no limit to the amount of bonded indebtedness which a New Jersey corporation may assume.

Frequently the bonds of a corporation become immensely more valuable than its preferred stock, and the holders of preferred stock would like to exchange their shares for bonds. The laws of New Jersey forbid the issue of bonds below par, but they must be issued to retire depreciated preferred stock. Again, it is sometimes desirable to secure a majority of the stock in a corporation in order to direct its policy toward some private end, but the holders are not disposed to sell; or traders on the exchange may find that a stock in which they are interested is too abundant to be manipulated, but to attempt to buy it outright might require funds beyond their disposal or cause an upward movement in the price that would defeat their ends. The amount of stock must be reduced. The solution of all of these dark problems is found in the law's permission to issue bonds without limit and to exchange them for preferred stock; and the execution of these schemes has been the Midas-touch that has created many of the astounding fortunes at which we now gape in wonder.

Again, great power is conferred by the New Jersey law on the directors of a corporation by giving them the right to amend the by-laws without the consent of the stockholders. Since it is in the by-laws that all rights and duties are defined, the directors can, by disfranchising the stockholders and increasing their own powers, render themselves practically omnipotent. But such undue authority is frequently withheld from the directors and preferred holders by the articles of incorporation.

A State that seeks the business of granting corporation charters may defeat its own ends by being over-zealous in patterning its laws to suit the designs of promoters. States have reputations to maintain in this respect, and, when they have once become disreputable, people refuse to invest in projects that they have chartered. By a series of accidents or by an unexampled wisdom, the Legislature of New Jersey has in this respect followed a midway path.

The reasons usually assigned for the popularity of the New Jersey law are, first, the greater scope of the charters that are granted, for there is no limit to the kinds of business in which a corporation may engage, except that ordinary commercial companies are forbidden to operate railroads in the State or to conduct a banking business, though they may own either railroad or bank stock. The president of one great industrial company who would naturally have taken a charter in Illinois came to New Jersey because the Illinois law forbids one home corporation from owning stock in another and it was necessary that this company should be interested in both railroad and steamship lines. Again, the laws of Pennsylvania prohibit extra-State corporations from owning more than one hundred acres of land in the State, though they may hold stock in home corporations that own any amount. Had this company been incorporated in Illinois it would thus have been impossible for it to hold, either directly or through the stock of another corporation, any quantity of Pennsylvania land. All the so-called trusts are excluded from West Virginia by a law limiting the capitalization of any corporation to $5,000,000. Michigan limits the capitalization according to the nature of the business conducted, and so with other States; but New Jersey fixes no maximum either to capitalization or to bonded indebtedness.

It was formerly customary for charters to be limited to a specified period, say twenty-five or fifty years, but now New Jersey extends them to eternity—"perpetual charters" they are called—a manifest necessity to the recent gigantic "industrials" whose con-

tracts and bonds mature in thirty or forty years.

Low taxation is a reason frequently assigned for incorporating in New Jersey. As a prominent New York banker expressed it, "I, as a New York man, send my corporations to New Jersey for the reason that the State has a financial surplus in its treasury and therefore will not be driven to squeeze my corporations to make up a deficiency. The State of New York sometimes has a deficit in some of its departments of government and its officials sometimes sit up at night to see how they can squeeze money out of my corporations."

Yet the tramp corporations that wander from the States of their creation promiscuously over the wide world, going hither or thither as business or necessity attracts or drives them, are not permitted by the New Jersey statutes as they are by South Dakota's for instance. The New Jersey laws expressly provide that every corporation shall maintain its "principal office" within the State, where the stock and transfer books shall be kept open to the inspection of any stockholder at all times during the usual hours of business and where legal process may be served on the representative of the corporation. It goes even further and commands that the office address, street and number be registered with the Secretary of State and that a sign announcing that it is the principal office of the said corporation shall be conspicuously displayed at the entrance.

With 9,500 corporations created by the State since 1896, and with the prospect of increasing thousands yearly, one would expect that under such a law office space and clerks would be at a premium in the State. But the law has given growth to one of the queerest freaks in all the business world. They are known as "Corporation Agencies" or "Trust Companies," and probably have no counterpart elsewhere. One of these agencies alone will maintain the "principal office" of hundreds of corporations at once and comply with every requirement of the law. They are in effect enormous bookkeeping concerns conducted on the coöperative plan by a host of corporations. Massive libraries, as it were, of stock books may be seen there, in charge of an army of scribes who register and post the transfers of stock daily that a correct record may be available for the inspection of stockholders.

Outside, at the entrance, is the stereotyped legend, "Principal Office of," etc., with a register of the companies represented. These names are necessarily in small characters, but even then it not infrequently happens that the list threatens to require more space than there is facade to the company's buildings. The constant modification of these lists, necessitated by the creation of new corporations and the dissolution of old, has led to the invention of an elastic sign, in which separate slabs with the names printed thereon may be inserted and removed at pleasure, so that the catalogue may be kept constantly up-to-date.

At the entrance of the New Jersey Corporations Agency in Jersey City are the names of nearly seven hundred corporations, whose total capital aggregates more than a billion dollars. The Corporation Trust Company of the same city boasts of more than 1,200 "principal offices" with a capitalization of between $3,000,000,000 and $4,000,000,000. The New Jersey Guarantee and Trust Company of Camden has on its doors 770 names.

Stockholders' meetings must all be held within the State. The corporation agencies are thus forced to add another to their anomalous functions. To the rear of, and usually inaccessible save from the main office, one finds a number of large airy rooms, furnished alike with massive library chairs and tables and equipped with rolling partitions, so that they may be made small or large. European hotels, one might call them, for artificial, charter-created persons only. Around these tables, at the meetings of stockholders or directors or at private conferences of the financial monarchs of the world, the history of the present industrial era is mapped out.

Of the score of thousands of corporations holding New Jersey charters, a comparatively small proportion really maintain permanent offices in the State as required by law; and many an attorney supplements his income by passively assisting in the evasion of the statute. Professional promoters receive permission when applying for a charter to use the name of the attorney as the resident agent of the corporation. The charter secured by this means, the incorporators repair to the attor-

ney's office, elect directors and call upon their newly appointed agent, who has held his position for it may be scarcely fifteen minutes, to resign. He complies, receives a fee for his services and is absolved from all further responsibility. His name and office go down in the record and are published in the annual report of the Secretary of State as the agent and principal office of the corporation; but so long as the operations of the company are confined to some remote State or territory the fact that he displays no sign or keeps no stock books is ignored and no one has a sufficient interest in the matter to make a complaint.

There is a widespread sentiment in the Western States, which have been the scene of most of the anti-trust legislation, that New Jersey in framing her laws so as to facilitate the formation of monopolistic combinations to prey on the nation at large has been guilty of little less than treachery to her sister States. That she has facilitated the formal union of formerly competitive interests is beyond dispute, but that practically the same result would have been achieved

A TYPICAL NEW JERSEY TRUST BUILDING'S DIRECTORY

THE "HOME" OFFICE OF THE UNITED STATES STEEL COMPANY AND THE NORTHERN SECURITIES COMPANY

without her aid is no less true. If, after a century of competition, commercial interests have learned that more is to be gained by working together than by opposing each other, of what avail is legislation?

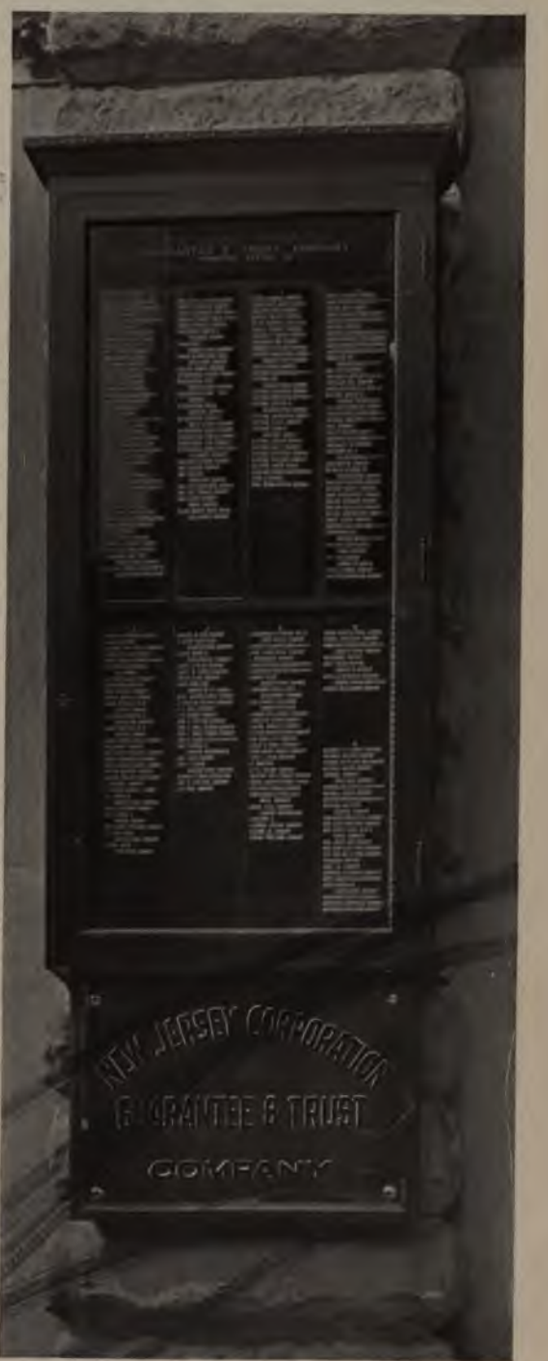
The officials at Trenton are most strenuous in denying that the State has made laws with a view to inviting corporate business. They say that the Legislature has simply on general principles attempted to frame a good corporation act, and that the corporation business has come merely as an incidental result. But on the floor of the Legislature it has been freely admitted that the laws have been adapted especially to the needs of prospective incorporators, with a view to fees and franchise taxes. Two or three members in the House lately referred by way of illustration

VAULT OF THE NEW JERSEY GUARANTEE AND TRUST COMPANY

Showing stock books of nearly 1,000 corporations. Mr. Hewitt made this photograph by the light of a thirty-two candle-power electric light after an exposure of an hour

to a recent amendment which was passed at the express instance of the United States Steel Corporation's promoters, which, it was said, threatened to go elsewhere for its charter if the law were not enacted, and as one of the members remarked, "It was such a big one, we didn't want to miss it." The amendment was to the effect that whereas a former regulation required the assent of two-thirds in interest of the stockholders in order to make alterations in the charter, etc., thereafter such action might be taken on the assent of two-thirds in interest of those present at the meeting. The steel interests feared that with a billion dollars of stock scattered world wide it would be difficult to get two-thirds of it represented at any meeting.

That popular prejudice will always be ap-



ONE OF THREE DIRECTORIES

Of the New Jersey Corporation, Guarantee & Trust Company

peased by the magnificent income which the State now derives from the licenses and fees of the corporations is quite doubtful. Evidently the time is coming when the great industries will be united and organized into fewer units. When that stage is reached, one of the most fruitful sources of income, viz., filing fees, will be materially reduced. Then New Jersey may cease to seek for corporation business. The legal rights of by far the larger part of the organized wealth of the country will then be in her hands subject to repeal at any time, for in order to avoid the effect of the Dartmouth College decision, the State has, by statute, reserved the right to repeal or amend her Corporation Act at any time. Then the cupidity which in the past has led her to pander to the trust magnates may become a weapon in the hands of demagogues. Thus the receipt of the State's income from such an unusual source rather than from taxes paid by private citizens has its present advantages; but it may have its future dangers.

In the meantime it is not surprising that Delaware should become envious of the golden stream pouring into the treasury of New Jersey and take over bodily the latter's corporation act—except that, whereas New Jersey's tax is one-tenth of one per cent. of all stock outstanding up to the sum of $3,000,000, Delaware's tax is one-twentieth of one per cent.; and, whereas New Jersey assesses one-twentieth of one per cent. for all stock issued in excess of $3,000,000 and less than $5,000,000, Delaware demands but one-fortieth of one per cent, and so on through the scale. But financiers are dubious of such sudden camp-meeting conversions and continue to go to New Jersey, whose hospitality is a tradition of so many years that they have little fear of a reversal of policy.

DIRECTORS' MEETING ROOM: THE TRUST COMPANY OF NEW JERSEY

Large financial deals have been put through in this room. The Directors of United States Steel and other corporations meet here

AN AMERICAN THRESHER AT WORK ON THE PAMPAS

THE UNITED STATES IN I AMERICA

A LAND OF PROMISE UNREALIZED—THE ATTITUDE OF AMERICANS TOWARD THE UNITED STATES — THE RESS OF TRADE AND THE CONSERVATISM THAT IT — OPPORTUNITIES FOR AMERICAN CAPITAL IN B SHIPPING, RAILROADS, CANALS AND INNUMERABLE IND

BY

WILLIAM BULFIN

"HOW are things with you in Buenos Aires?" said a leading merchant in New York last year to an Argentine friend of mine who was on a business visit to the United States. And without waiting for a reply he went on, "You Brazilians are a lively people!"

"In Buenos Aires," said the visitor, "we are not Brazilians. We are Argentines. Although," he added humorously, "up here I find that you make geographical and political readjustments of our continent on a scale that is bewildering."

"Well," said the merchant, "very likely we do mix you up somewhat now and then, but I expect you people are mixed up yourselves. revolution there every breakfast."

This epitomizes the po large class in the Unit Latin America. It is attitude of more or less c varying now and then t contemptuous patronage trine had its origin in A self-interest and was pr the purpose of keeping E becoming dangerous co It has been a safeguard

THE LAST TRACE OF COLONIAL DAYS
Viceroy in Buenos Aires. Modern street leveling has nearly swallowed up the facade

does not figure
n American pro-
nt between the
ally friendly are
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fluence of the

United States should be paramount in every Latin American country. The relations between North and South America should be more than friendly by virtue of the many bonds of mutual interest which should long since have been closely and securely drawn.

MAY AVENUE, BUENOS AIRES
stance. The street's pavement is of Trinidad asphalt laid by an American Company

AT A RIVER PORT IN ARGENTINA
Loading carcasses of frozen mutton on an ocean liner

THE RESULTS OF THE PAN-AMERICAN CONGRESS

There were high hopes the Pan-American Congress which closed in January last would do a great deal towards dissipating the distrust of the United States which the Spanish-American war did so much to engender in the Latin American mind. But unfortunately no such result has been achieved. Not only is the Congress regarded as a failure in the southern continent, but in several countries the failure is attributed to the delegates of the United States. It will be remembered that a project of compulsory arbitration was brought before the Congress by the Argentine delegates. Chile opposed it. The other Latin American countries took sides, there being, however, a decided and weighty following behind the Argentine project. The United States delegates remained neutral, and one of them, Mr. W. I. Buchanan, ex-United States Minister to Argentina and Paraguay, suggested a middle course which was finally adopted. The intervention of Mr. Buchanan was tactful and it certainly prevented a disruption of the Congress; but it failed to put any check on Chilean Cæsarism, which is a constant menace to South American peace. So long as Chile harbors imperialistic designs against Peru and Bolivia and refuses to sub-

ROSARIO WHARVES IN THE BUSY WHEAT SEASON

RIO HARBOR
One of the most beautiful and unhealthful places in the world

A RAILROAD STATION IN THE ANDES
Near the Chilean frontier

CATTLE MARKING

mit her litigation with those nations to arbitration so long will Latin American union be impossible. Since the close of the Congress the belief has gained ground that Chile would have ceded on the issue of compulsory arbitration, even if her delegates had withdrawn from the Congress, were it not for the attitude of the United States delegation. Between this belief and the belief that the United States favors the Chilean policy of conquest there is, of course onlv a step. During the past few months it has been rather more than an open secret that several United States Legations in Latin America are in favor of Chilean expansion. In Argentina, for example, the general tone of the press, since the Congress, has been one of disillusionment not unmixed with irritation. Several papers in Buenos Aires have gone so far as to assert that the alleged favor shown by the United States towards the imperial aggressiveness of Chile is the outcome of commercial jealousy—

A FEW COW HIDES DRYING
At a depot on the Pampas

A SHEPHERD'S HUT

that the strides recently made by Argentina in cereal and fresh-meat production have brought her into formidable rivalry with the United States in the markets of Europe; and that consequently Chilean expansion, which can only be achieved by Argentine defeat in war, would mean the crippling for an indefinite period of the only American competitor whom the United States has reason to fear.

EVIDENCE OF THE UNITED STATES LACKING

One Sunday afternoon, a few weeks ago, I ran across a disgusted New Yorker in Buenos Aires.

"It's perfectly ridiculous," he said, "but no matter. It will be a relief anyway to get it out. New Yorkers are more or less like other Americans; they become more patriotic when they emigrate. That is my case, at least, and I'm not ashamed of it. When a fellow is home he may not run much towards sentiment and all that, and he sees the Flag every other day and doesn't wonder at it. But down here it is different. This is my first visit to Buenos Aires in five years and during all that time I have been out in the desert. After breakfast this morning I said I would take a stroll down by the docks and see some trim American sailormen and some rakish American ships. I was just hankering for a look at Old Glory. Well, sir, I walked and walked, but never an American ship, and never an American flag did I see."

The latest published reports of the Argentine Statistical Department are not very exhilarating reading to an American. During the twelve months covered by the returns before me over one thousand steamers entered Argentine ports. Not one of them carried the American flag. The shipping returns for the year give an aggregate of about 2,000,000 tons of entries, out of which total the American flag flew over a meagre 19,000—not the hundredth part. The coasting trade of Latin

SHIPPING ON THE PARANA

One of the many wheat wharves at Rosario. The bags are slid down the chute into the holds of the vessels

INOCULATING CATTLE ON THE PAMPAS AGAINST CARBUNCLE

MEETING OF THE THREE REPUBLICS
the boat to the left is Argentina; Brazil is in the distance and Paraguay is on the right

every flag but the continent -hungry century. Fortunately for the foreign trade of the United States it is not dependent on American shipping to do its carrying. Bra-

HE SOUTH AMERICAN NIAGARA
n the Brazilian side the fall is sixty-four metres and on the Argentine side, fifty-five metres

ON THE BRAZILIAN SIDE OF THE FALLS OF IGUAZA

IN THE LUMBER REGION OF THE SOUTHERN ANDES

As yet practically unworked

A CORNER IN THE CENTRAL PRODUCE MARKET LOFTS
In Buenos Aires, on which there is storage room for 15,000 tons of wool

zilian coffee finds its largest buyer in the United States and the United States has practically a monopoly of supplying Brazil with flour. Argentina is a flour-producing country, but in spite of all her efforts she is unable to oust the United States from the Brazilian market. The year's trading with Argentina in 1900 resulted in the United States, selling nearly twice as much to Argentina as Argentina sold to the United States. The total exports from Argentina during 1901 reached nearly $200,000,000. Out of that total the United States took about $7,000,000, or 3½ per cent. During 1901 Argentina's imports totalled about $120,000,000, of which the United States sent about $15,000,000, or say

THE FOREST PRIMEVAL IN CORDOBA, ARGENTINA

about 12½ per cent. These figures are fairly representative of the balance of trade which obtains between the United States and Latin America, with the exception of Mexico and the Isthmian states.

The largest item of United States export to South America is lumber, largely spruce and pitch pine. Then there is machinery, especially agricultural machinery, plows, mowing-machines, binders, headers, hay-rakes, pitch-forks, seeders, hay-presses and maize-shellers. English threshers hold the field, however. Out of every 600 threshers imported into the Argentine Republic about 90 go from the United States, while about 450 go from England, but the proportion is changing. The American threshers are coming to the front. They are more expensive, but it takes four men less to work them, and they deliver about 200 bags per day more than the English machines. Out of every 5,000 seeders in Argentina, 4,500 have been imported from the United States, and 3,800 out of every 4,000 binders. The American maize-sheller is the only one known on the pampas. Out of 20,000 headers 18,000 were imported from the United States into Argentina between 1895 and 1899. The proportion is still higher now. One item in a long list of smaller articles sent from the United States deserves

THE PEOPLE WITH WHOM THE AMERICAN HAS TO DEAL
A crowd of the elite at a Sunday afternoon race meeting in Buenos Aires

special mention,—patent medicine. Latin America is a happy hunting ground for the patent medicine man from the United States. Medicine men with infallible cures for every human ailment, with Uncle Sam's speech upon their lips, and with a genius for judicious advertising, have stuck posters on both sides of the Andes.

Speaking generally, Jonathan takes very little part in transacting the everyday business of Latin America. His machinery and other hardware generally is imported and sold by English and German firms. Jonathan delivers the goods on board ship for spot cash and washes his hands of them. When he sells a Latin American tramcar or railway coach he has done with it, for south of Mexico he has little if any interest in the lines on which they run. He leaves Latin American banking to whomsoever likes to engage in it. There are banks that pay twenty-five per cent., and there are enterprises in the export trade that pay thirty per cent. and more, but these dividends go exclusively to Europe. Jonathan is a great manufacturer of cotton goods, but he does not push them south of the Isthmus. He is apparently over-cautious in all his operations which are conducted in the Spanish language.

Here and there in Latin America you will meet the envoys of Jonathan, but they are all too few. In a state observatory is an American savant over his charts and instruments. Here is a noted entomologist from Washington studying the locust problem amidst the devastated wheat fields. At this river's mouth is an American engineer studying currents and taking soundings for a Government trying to be progressive. In this girls' normal school is an American normal teacher doing her best to engraft her national system of education on the institutions of this sub-tropical land. Here in this growing rural industry—dairy farming, fruit raising, wheat growing—you have the versatile, enterprising American pioneer, fighting the wilderness with science and bending it to his will. But astronomer, entomologist, engineer, teacher and colonist are respectively isolated. They are too few to effect the speedy revolution of a scheme of things which was mapped out in the middle ages and which has been patched and botched in every century since. They are only numerous enough to show what great things ten times their number might accomplish, and what helpful and uplifting influences might be derived by Latin America from closer social as well as commercial relations with the United States.

THE LESSON BEFORE THE AMERICAN MANUFACTURER

The American manufacturer will, in the first place, have to take a leaf out of the Italian book. The Italian manufacturers have carefully studied Latin American taste. They did not undertake to teach Brazilians or Argentines or Chileans what they should wear. They confined themselves to finding out what their customers wanted to buy and selling it to them. They got out showy and not very expensive goods. They sent out men of their own to Latin America to open houses to push the sale of these goods. They adopted the credit system which obtains in almost all European commercial dealings with Latin America. Finally, by their excellent merchant navy they were enabled to get low freights and this allowed them to place their wares on the market at a price which undercut the English, Germans, Belgians and French. Some years back Italy was practically unknown as a cotton manufacturer in the Latin American market: at present she holds about one-third of it.

Here, then, is the lesson for American manufacturers and exporters, not only of cotton goods, but of various other articles of commerce:

They must consult the taste of the market.

They must push their goods by sending out proper men to establish houses, show stocks instead of samples, and do some advertising.

They must develop a credit system.

Finally, they must do something to establish shipping communication of their own.

Three months' practical experience in each distributing centre in Latin America would suffice to show an expert that with a minimum of concession to Latin American taste the American textiles could easily become popular. The cost of production undoubtedly is in favor of the American manufacturer. The necessity of establishing strong American commercial houses in Latin America ought to be obvious. It is necessary to found big wholesale and retail stores and man them efficiently. When the right goods are pushed

here in the proper way there is always a satisfactory result. But too often are the wrong men sent out with the right goods. It would pay the manufacturers and exporters of the United States to send first-class men to represent them in Latin America—men who would gild a business transaction with the urbanity so much prized by Latin Americans, men who would take the trouble of studying the language and making themselves acquainted with the customs of the different countries. The man who depends on "smartness" alone is a commercial calamity for the people who employ him. He must be thoroughly straightforward and he must be able to inspire confidence and win esteem. The Spanish word "simpatico" is translated into English as "sympathetic," but it means a great deal more in Spanish than it does in English. Amongst other things it means cultured social amenity, sympathy with the people, a knowledge of their language, a decent respect for their ways which pleases and flatters, and an attitude more or less indulgent to what a foreigner may consider their antiquated business methods. In advertising hundreds of thousands of American dollars are thrown away on worthless publications. Many of the publication bureaus or advertising agencies in Latin America are quite ready to undertake the most delicate and important work, and charge a very high commission for so doing; but they have neither taste nor insight to insure efficiency. It is the worst of bad policy for an American house to spend large sums of money on advertising in South America without sending a capable man to look after it.

Most of the large importing firms in Latin America are branches of European houses. The home house gives credit to the dealers through the branches, and the dealers, having credit from the branches, are able to give credit to the consumers. Credit of from three to five months is a necessity in dealing with Latin America, chiefly because Latin America is mainly a producer of raw material and has, broadly speaking, only one large turn-over of money during the year.

AN ILLUSTRATION OF AMERICAN CONSERVATISM

n tired of telling my correspondents in States what they ought to do, and all to no use," was the remark made to me recently by a man at the head of one of the strongest importing houses in the River Plate. "Every mail brings me the old story, and still they wonder they are not doing more business."

"How do you account for such conservatism?" I asked.

"I don't try to account for it," he replied. "I am a busy man and I have to devote my time to the European firms who will do business in a business-like way."

"Then you think your American correspondents are standing in their own light?" I asked.

"I am sure of it," he replied; and taking a letter from his office table he went on: "Here is a long letter from an American manufacturer. He offers me (mentioning the article and mark) at his lowest terms, which are no lower than the cost price in England. The English mark, which I have been selling for years, is well known here; in fact, it is a household word in every River Plate country. And you know how far the name of a well-established mark goes with our customers. What do you think are the terms which my American offers me to take up his mark and push it? Remember, it has never been heard of here. Well, sir, when the English firm will give me five months' credit for an article that has been on the market more than a quarter of a century, my American will not give me a day's credit for an article which not one person in every twenty thousand people down here has heard of before. In England I get ten per cent. discount for cash: my American correspondent offers me two and a half! When I took up the English article here seven and twenty years ago I was made a liberal allowance by the manufacturers for the purpose of advertising. This man will not offer a cent. So there you are."

"But perhaps you have stated an extreme case," I remarked.

"Nothing of the kind," he said. "I could cite hundreds of such cases. But I will go further. I could show you in my letter-copying books dozens of letters written during the past ten years to the United States, saying that even if the terms of payment were equal our orders would still go to Europe."

"Prejudice?" I asked.

"Absolutely no," he replied, "purely a

matter of business interest. Freights from the United States are murderous. It is much nearer from the River Plate to New York than from the River Plate to the Channel ports, but the freights from American ports are far higher than from any European port. And it takes more time to get your goods."

At present, however, there are ten non-American steamship companies doing the carrying trade between the United States and the Atlantic seaboard of South America. They are said to have formed a trust and raised freights. Yet their printed schedules show the same rates from American ports as from British; one list is copied from the other, for there is said to be a community-of-interest among the lines on both sides of the water. The mail service, too, though sometimes requiring ten weeks for an interchange of letters between, say, the River Plate and New York, is based on a schedule of sailings that makes no substantial difference in time between English and American ports and South American ports. Recently a case occurred in which letters reached the River Plate from New York in twenty-two days—but owing to various causes there is no certainty about the delivery, and letters posted in New York on the first of June may possibly not be delivered in Buenos Aires until the 5th, 6th, or 7th of July. It is even said that the longest way round is the quickest route for mails between the River Plate and the United States and sometimes between Rio de Janeiro and New York, if they are sent on one of the semi-tramp steamers that are never able to keep schedule time, rather than on the boats that do keep it.

Some of the United States mails are sent to the River Plate via Rio de Janeiro. At Rio de Janeiro the mails are transshipped to the British mail steamers going to the Plate, or, through the Straits of Magellan, round to the Pacific, calling at Montevideo. A merchant at Montevideo some time ago sent two orders on the same day—one to London, the other to New York. Inside of seven weeks he had the goods from London in his store. The stock was sold out for more than a week before his bill of lading came from the United States; and it was nearly three weeks after the arrival of the bill of lading that the goods came to hand. Meanwhile, a second consignment of goods was already on its way out from England and arrived only sixteen days after the first consignment of American goods. An American merchant navy must do the American carrying trade. Every package of goods that leaves an American port on a ship flying a foreign flag is more or less handicapped.

WHAT AMERICAN EXPANSION MAY DO

But there is a closer relation possible than a well-developed trade between South American countries and the United States, the relation which comes with the investment of capital. Not many months ago I had the pleasure of meeting one of the leading insurance men of New York who was on a business trip to South America. We were speaking of the extraordinary American commercial prosperity, and he said:

"We ourselves have scarcely realized it yet. It has been so sudden and so immense that we have only time for a walk around it. But I can tell you two things about it which are of importance: one is that a financier on Wall Street no longer consults his tape the first thing in the morning to find out the latest news from London. He plans out his campaigns on a home basis. Three years ago he would not have thought of moving without shaping his policy by the London cable. The other thing I have to tell you is that the American securities are coming home: we shall have to turn world bankers, and from borrowers become lenders. In fact we are at it already."

I learned some weeks later that before leaving the Argentine Republic he had offered a loan to the Government in the name of his company. He had also made arrangements by which part of the local profits of his company should be locally invested instead of being remitted to New York. Since then an American financier has been offered the floating of a Chilean loan; the same capitalist has been negotiating the purchase of an Argentine railway; the Pan-American Congress has passed resolutions regarding the establishment of American banks; an American syndicate has obtained a valuable concession for the development of an important region of Bolivia, and the other day the River Plate was metaphorically set in a blaze by the offer of a loan of $50,000,000 made to an Argentine state bank by an American insurance company.

It is surprising to see so many important

men in America giving such scant attention to Latin America, while they eagerly discuss the future of American enterprise in China. It is not astonishing that they should turn their attention to the splendid possibilities in the valley of the Yangtse Kiang, but it is certainly curious to observe what meagre interest they take in the valleys of the Orinoco, of the Amazon and its branches, of the River Plate and its mighty tributary streams and of the Rio Negro. Some of the South American fields of enterprise for capital are partially occupied, others are to some extent surveyed, but many are still virgin soil.

THE POSSIBILITIES FOR BANKING

A bank financed by United States capital is conspicuous in most Latin American countries by its absence. Even in Mexico the leading financial institution is the Banco de Londres. There is no American bank yet in Latin America fit to be compared to the British banks which flourish there. And banking is not a precarious business in Latin America. For years the London and River Plate Bank has paid handsome dividends—few of them being under 20 per cent. made on a perfectly safe business in discounts and exchange. The London and Brazilian Bank, the Tarapaca and Argentina Bank, the British Bank of South America, the German Transatlantic Bank and the French, Spanish and Italian banks have been doing a flourishing business. In the early nineties when an acute economic crisis followed by a panic hit the River Plate countries, some of the foreign banks were severely jolted, but only one of them went down, and its fall was due to bad management. When the reaction came the foreign banks quickly recovered lost ground, and ever since their prosperity has steadily increased notwithstanding droughts, losses in the flocks and herds, occasional revolutions, the closing of British ports to Argentine live stock and commercial depression. The Pan-American Congress passed an important resolution regarding the establishment of United States banks in Latin America. Such banks established at Rio de Janeiro, Buenos Aires, Valparaiso and other centres would pay handsome dividends to their shareholders, and they would give a great impetus to American commerce with Latin American countries by the facilities which they would afford to trade. In the Argentine Republic, in Brazil, Uruguay and even in Paraguay there are great possibilities for rural banking. There is also room for a great mortgage bank in the River Plate republics. From ten to fifteen and eighteen per cent. is paid at present for money advanced on perfectly good security. Any bank that would undercut such high rates would be offered more safe business than it could do.

UNITED STATES SHIPPING NECESSARY AND PROFITABLE

American commerce must make up its mind to take charge of its own carrying trade. The Pan-American Congress has also passed a resolution in this sense, and the sooner that resolution takes effective shape the better. Rapid and punctual lines of American steamers between the United States and Latin American ports would earn excellent dividends without having to recur to commerce-destroying tariffs; and the companies would not be long in seeing the necessity of putting additional ships on their routes to cope with the growing trade. If at present there is carrying enough to be done to make it worth the while of foreign companies to run their ships along the coasts of the two Americas, there ought to be sufficient inducement to American shipowners to engage in the trade. But the present at its very best is only a faint earnest of the future. Who can measure the wondrous revolution which will be caused in Latin America by the Isthmian canal, and by reciprocity?

THE DEVELOPMENT OF NEW RAILROADS

In the days when the liberated Spanish colonies of South America were beginning to bask in the sunshine of the Monroe Doctrine one William Wheelwright, a New England ship captain, was wrecked in the River Plate. He was a man of genius, and from the status of a penniless castaway he was to become the most honored pioneer of South American navigation and railway communication. He projected the great Central Argentine Railway and the equally great Pacific Steam Navigation Company. But he knocked at the door of American capitalists in vain, and was obliged to seek financial support in London. The future Wheelwrights ought to land in South America without a shipwreck and American

capitalists will be unwise if they allow history to repeat itself. The Orinoco, Amazon and the great streams which form the River Plate have been navigated over and over again by American explorers. It is time for some American steamboat companies to study this field of enterprise for themselves and convince themselves of its possibilities. The Orinoco flows through some of the most fertile regions of the world. The teeming heart of the South American continent can be reached by the basin of the Amazon or by the basin of the Plate, and the pine forests of the southern Andes can be reached by the Rio Negro and its tributary, the Limay. The Acre region in the North of Bolivia is covered with dense rubber forests. An American syndicate has gained a footing there, much to the disgust of Señor Luis Galvez, who founded the Republic of Acre two or three years ago and defeated the Bolivian armies. South of Colombia I know of no railway owned by Americans. In Brazil, Uruguay, Paraguay, the Argentine Republic, Chile, Bolivia and Peru there will be at present writing about 25,000 miles of railway, not a mile of which is controlled by American capital. But the field for railway enterprise in these countries is still wide. In Brazil and Argentina alone there is still room for 20,000 miles of road. In Bolivia the field is practically untouched. There is not yet a mile of railway between the navigable waters of the upper Paraguay and the Bolivian capital, La Paz. It is announced that a French syndicate has already secured a valuable railway and colonization concession in Paraguay, but there are many thousand square leagues of populated country still to be covered. Canals are as yet unknown on the Pampas. There is a project for the canalization of an immense portion of the southern part of Buenos Aires Province in order to effect the drainage of the low-lying lands that are subject to occasional floods. The cheap transit which it would afford, if realized, to enormous areas of cereal-producing country would give a great impetus to agricultural industry.

In the far south of the continent the valley of the Rio Negro is a land of promise. The river is navigable for large steamers of light draught up to its confluence with the Limay and thence to the Andean lake of Nahuel Huapi in smaller craft. There is a lumber trade along these streams from the forests of the Andean foothills and the lower slopes of the main range. This trade is as yet only in its infancy. Important as the lumber trade is likely to become, however, the great factor is the development of the Rio Negro Valley with its irrigation. Nothing has yet been done in this direction so that the field is still open.

INDUSTRIES IN THEIR INFANCY

There is practically an unlimited field in Argentina for industrial enterprise. The Andes have as yet been only scratched in the search for mineral wealth by the modern mining engineers. The forests are relatively unexplored; there are whole provinces of populated country waiting only for railways to bring them into touch with the industrial progress of the age. There has not yet been a single volt of electric power drawn from any of the great cataracts of the Parana, one of which, the Iguazu, is in the centre of a district capable of producing abundance of raw material for textile fabrics. The lumber business of Paraguay and the upper Argentine provinces, like that of Brazil, is not worked to a fourth of its possibilities. The fresh meat companies of the River Plate are making enormous dividends; and in the Argentine Republic alone there is still ample room for at least half a dozen large refrigerating establishments. It is currently stated that one of the existing companies made last year over forty per cent. Another company almost duplicated its plant besides declaring a high dividend. A third is said to be about to pay a dividend of thirty-five per cent. This is a new industry as is also the raising of cereals for export.

The growing of alfalfa for grazing purposes is giving such fine returns on the Pampas that tracts of land which were formerly to a great extent unproductive on account of the coarse grass are now turning out fat steers by the thousand yearly. British land companies are getting ten and twenty per cent. out of alfalfa already and are looking forward to bigger dividends. With proper care alfalfa is perennial on light, sandy soils, where the roots have not far to go to strike the moisture of the clay over the springs. Good alfalfa land may be purchased at the rate of $20,000 to $30,000 per league. To prepare the land and sow the alfalfa costs another $20,000 per league. I

know leagues of land which, under the coarse grass that grew upon them five years ago, were barely able to support one thousand head of cattle per league during the best of times. They are now carrying from four to five thousand head, and in some cases even more, per league. Five years ago these lands could only turn out store cattle—of about three hundred and fifty kilos in weight at most. Now the average weight of the fat steers which leave them periodically is over six hundred kilos.

Another rising industry of the Pampas is dairy farming, of which an American, the late Oliver C. James, may be said to have been the pioneer. James did not emigrate to South America as a dairy farmer. He was connected with railway construction and also with Professor Hartt's geological survey in Brazil, from which country he went to Argentina, where, with characteristic American versatility, he turned his attention to bucolic affairs. After a while he started a scientific dairy-farming business, much to the amusement of his neighbors who looked upon him as a crank foredoomed to failure. He was successful. Fifteen years ago the Argentine Republic had over 20,000,000 horned cattle and not a pound of butter for export. In fact it had to import butter for its own consumption. Last year it exported nearly two thousand tons.

Everything that American statesmen can do to cultivate closer and more fraternal political relations with Latin Americans should be done, and done at once. Latin Americans look askance at the territorial, naval, military and political expansion of the United States. There are not wanting European mentors of the Latin Americans who by means of a subsidized cable service, and journalistic, diplomatic innuendo, make it appear that "the absorbent Yankee" means to have the whole of the American continent to himself. Consequently it should be the policy of Americans to show that, so far as Latin America is concerned, the United States seeks not territorial, but merely commercial and financial expansion. The foreign policy of Latin America must largely depend upon commercial considerations, and as the Spanish proverb says, "Lean towards whatever sun gives the most warmth." Latin Americans cannot be expected to lean towards the United States so long as the United States by its cast-iron system of protection limits them in the means of getting rid of their produce and forces them to look elsewhere for markets and for that friendship which seems to thrive best upon commercial convenience. In the speech which is regarded as the late President McKinley's political last will and testament, out and out protection was renounced by one who had been an out and out protectionist. Relative prohibitionism in American customs tariffs must give place to a policy of reciprocity. And reciprocity is the shortest and easiest road for the United States to the heart of Latin America.

OUR NATURAL FOREIGN MARKETS

THE COUNTRIES THAT BUY OUR SEVERAL CLASSES OF PRODUCTS — THE IMPORTANT GROWTH OF TROPICAL TRADE — THE VALUE OF OUR DEPENDENT ISLANDS

BY

O. P. AUSTIN

CHIEF OF THE BUREAU OF STATISTICS OF THE UNITED STATES TREASURY DEPARTMENT

WITH the assurance that our surplus in all classes of production is to continue, as I showed in a preceding article, and that the world's markets are to remain open to us, we naturally desire to know where the best markets are to be found. For this the best guide will be found in the experiences of our own exporters in those markets during recent years. Taking the grand divisions one by one, our export figures of last year are as follows: To Europe, 1,136 millions, of which 19% was manufactures; to North America, other than the United States, 196 millions, of which 49% was manu-

factures; to South America, 45 millions, of which 60% was manufactures; to Africa, 25 millions, of which 40% was manufactures; to Asia, 50 millions, of which 66% was manufactures; and to Oceanica, 35 millions, of which 80% was manufactures. Comparing the exports to Europe alone with those of the remainder of the world as a whole, it may be said that the exports to Europe were 1,136 millions, of which manufactures formed 19%; and to the remainder of the world 351 millions, of which manufactures formed 56%. Our total exports of manufactures were valued at 412 millions, and of this total 52% went to Europe and 48% to other parts of the world. The total exports of products other than manufactures were valued at 1,075 millions, and of this sum 85% went to Europe and 15% to other parts of the world. From these facts we may conclude:

(1). That the continent which takes one-half of our manufactures, even though it be a great manufacturing centre, is a promising field for standard goods of high grades and reliable qualities to be sold at small margins of profit;

(2). That the other parts of the world which also take one-half of our manufactures, are promising fields for goods of special types, of qualities and forms varying with the customs and demands of the people in the sections to be supplied.

Each field needs careful attention to assure success—Europe because of the sharp competition which may be expected from local manufacturers; other countries because of the special requirements of local custom.

The total imports of the European countries are over 8,000 millions of dollars, of which we supply about 15%; those of Asia and Oceanica. 1,200 millions, of which we supply about 10%; those of South America, 357 millions, of which we supply about 10%; those of Africa, 430 millions, of which we supply 5%; and those of North America other than the United States, 400 millions, of which, by reason of proximity, we supply 40%. While a considerable share of the commerce of any country is a mere exchange with contiguous or adjacent countries, it may be assumed that as a rule fully one-half of the imports of these grand divisions is of a character for which we may compete, thus indicating that there are still great opportunities for the American producer and manufacturer in all parts of the consuming world and that with patience, diligence, and fair dealing he may expect to increase his sales in every direction.

Turning to the import side, we find some new and extremely interesting factors entering into that feature of our commerce. Formerly manufactures formed a large share of our imports. But with the increase in manufacturing at home and the disposition to diversify and to increase the food-supplies drawn from other countries the character of our imports is rapidly changing. While our manufacturers are themselves supplying the manufactures which our people were accustomed to import, they are in turn increasing very largely their own importations of the materials required for that manufacturing. With the increase in prosperity and the improved facilities for quick and cheap transportation, our people are constantly increasing their consumption of the natural products of other countries. The result is that our imports are increasing and will continue to increase. You can count on the fingers of one hand the number of years in which our imports have aggregated as much as 800 million dollars, but in the fiscal year 1902 they will exceed 900 millions in value, and at the present rate of progress bid fair to be a round billion in the near future. Year by year the people consume increased quantities of tropical products for food and drink and for use in manufacturing. Our imports of sugar have grown from a little over a billion pounds in 1870 to four and a half billions in 1901; coffee from 235 million pounds to 1,073 millions; of tea, from 47 million pounds to 63 millions; of cacao, from less than four million pounds to over 50 millions, and of rice, from 43 millions pounds to 139 millions.

But more important than this is the fact that the great manufacturing interests of the country are making greater and greater demands upon the tropics for their supplies of raw materials. The imports of fibres, chiefly tropical, which in 1870 amounted to less than 44,000 tons, were last year over 256,000 tons; those of rubber have in the same time increased from less than ten million pounds to over 55 million pounds; tobacco, from six million pounds to 28 millions; silk, from a half-million pounds to over 12 millions; and Egyptian cotton, from less than two million

pounds to over 68 millions. The result is that the value of tropical and subtropical products imported has grown from 143 million dollars in 1870 to 400 millions in 1901, and the share which they form of our imports has grown from 31% of the total in 1870 to 48% of the total in 1901 and seem likely to form more than 50% in the near future. The total of our imports has doubled since 1870, but the imports of tropical and subtropical products have trebled in the same time. The value of our imports classified as "manufacturers' materials" only a dozen years ago was 265 million dollars and amounted to 33% of the total. In the year about to end the value of such imports will be fully 420 millions and will constitute more than 46% of the total.

It is apparent from all this that we are not only increasing our importations but are at the same time increasing our dependence upon the tropics. In this fact is to be found an important suggestion to the producers, the manufacturers, and the exporters of the country, namely: *that they should seek to pay in the products of the field and factory for the increasing millions of dollars expended for tropical products which they import and must continue to import, and that in the great undeveloped markets of South America, Africa, Asia and Oceanica, which supply these products, we should seek to enlarge our sales and to encourage mutual interchange of commodities.*

Even more important than this, however, is the suggestion as to the possibilities of obtaining part of this supply of our tropical requirements from the groups of tropical islands over which the American flag now floats. They have an area of 150,000 square miles, a population of 10,000,000 people and an unmeasured possibility for the production of the very articles which we are now importing in increased quantities and must continue to import in greater quantities. Is it not possible that much of this great mass of the necessities of life and of manufacture which we are now importing can be produced under the American flag, with American capital, and by American citizens?

American capital to the value of $75,000,000 has been invested in the Hawaiian Islands since they were commercially annexed by the reciprocity treaty of 1876, and as a result they have increased their producing power twentyfold, and have also increased in like proportion their consumption of our products. In the short period of four years since Porto Rico came under the American flag it has trebled its supply of tropical products in our market and more than quadrupled its consumption of American goods. In the four years since the capture of Manila our exports to the Philippine Islands have increased tenfold, and those to all Asia and Oceanica have doubled. Our island possessions now supply us about $40,000,000 worth of our tropical requirements annually, and take nearly as much of our products in exchange for them. These tropical products are not only bought within our own territory, but in many cases they are the product and property of American citizens.

The Hawaiian Islands have been so developed by American capital that they have increased their products twentyfold and now actually supply seven per cent. of the tropical requirements of the United States. What, then, may be the future of Porto Rico, which lies so much nearer to the great consuming centres and has six times the population of Hawaii? And what may be the future of the Philippines which have twenty times the area and fifty times the population of Hawaii? With like investments of American capital will not their productions be also multiplied until they are able, in combination with our other tropical islands, to supply most of the tropical products for which we now send more than $1,000,000 out of the country every day of the year? If so, may we not expect that that million dollars a day will be returned to us by those islands in the purchase of the products of our fields and factories? Steam and electricity have minimized distance, and by opening our doors for a free interchange of products with those islands we practically attach them to the United States and furnish the same freedom of interchange which now exists between the contiguous States and Territories of the Union. If by this process we have attached to the United States a tropical area which will supply our tropical requirements in exchange for the products of our temperate climate, we shall have made the United States a country capable of producing all of the requirementsof man, and of producing them at such a minimum of cost as to assure the continuance of our commercial supremacy.

"THE START"—THIRTY-FOURTH STREET AND EAST RIVER, NEW YORK

BY TROLLEY FROM NEW YORK TO CHICAGO

STUDYING OUR OWN COUNTRY BY LEISURELY TRAVEL—THE TROLLEY HOUSE CAR—THE SOCIAL CHANGES WROUGHT BY ELECTRIC TRAVEL

BY

ALBERT BIGELOW PAINE

Illustrated from photographs taken by the author

STEAM for speed: trolley for a good time. You cannot yet travel all the way from New York to Chicago by electricity, but you can cover much of the distance in this manner. Within two years or three at the latest, you will be able—but I am anticipating. It is a habit acquired from interurban promoters. Let us content ourselves with what may be done today.

I began the journey at New York with

THE FALLS OF KINDERHOOK CREEK, NEW YORK

Taken from a moving car

THE CATSKILLS ACROSS THE HUDSON

rather vague statistics as to the number of trolley miles between the greater cities of the East and West, and with only a general idea as to their course. Though the best obtainable, the maps kindly supplied by the leading journal of street railway construction were guaranteed to be by no means accurate. Definite information extended only as far

NASSAU LAKE
Where the author fished for pickerel

AT THE CENTRE OF ROCHESTER.

TAKEN FROM A MOVING CAR BETWEEN TOLEDO AND NORWALK

as Tarrytown. As to time, it might take me a week—or a month. It was well to have started with things of this sort understood.

A light straw bag, some fishing things, a camera, an air-cushion for the cushionless seats I had reason to expect—these constituted the main features of my outfit; and, although it was June, I was wise in taking light wool

LOOKING UP THE WATERFRONT AT TOLEDO

OIL WELLS BETWEEN NORWALK AND TOLEDO

The car from which this photograph was taken was moving at the rate of fifty miles an hour

AT HAMMOND, INDIANA
The eastern terminal of the Chicago trolley connection

underwear. It was the morning of the tenth when I began my journey, starting with the red car at Thirty-fourth Street and East River, transferring at Third Avenue for 129th Street.

It had cost five cents to 129th Street, and five cents more to reach Williamsbridge. But from Williamsbridge they would not let me pay. They insisted on transferring me. They transferred me to Mt. Vernon, from Mt. Vernon to New Rochelle, from New Rochelle to Larchmont, a distance of nearly twenty miles altogether, and all for the original nickel I had paid on leaving the Harlem River. I began to wonder if this system of transfers extended to Chicago, and to calculate how much I could save by traveling continuously.

THE FIELD MUSEUM, JACKSON PARK, CHICAGO
Formerly the Fine Arts Building

The conductor became sociable and pointed out places of interest, whereupon I confided to him what I had undertaken to do. He regarded me rather fixedly for a moment, then indicated a mass of red buildings beyond the trees.

"That is the Bloomingdale Asylum," he said.

A marvelous evening view of the Hudson from the hills back of Tarrytown, a short steam ride to New Hamburg, with two miles staging through daisied hills to quaint old Wappinger's Falls, where time moves with deliberate pace and cars run eighty minutes apart, then eight miles of trolleying between darkening hedges and rest at Poughkeepsie marked the end of the first day.

Paralleling the New York Central, and availing myself of it when needful, it took me five days to get out of New York State, But they were five splendid June days and I did not hurry. When, as was the case between Hudson and Albany, I saw beautiful water, and heard rumors of pickerel and bass, I signaled the conductor and got off within a few steps of some excellent sport. The Albany and Hudson line, by the way, is an old steam line converted into one of the finest electric roads in the country. Its coaches are fully fifty feet long, such as are used on the long distance electric lines in the West, with double rows of upholstered seats, and a combination smoking, baggage, and express compartment at one end. Cars run an hour apart, at a speed of about fifty miles, and with the third-rail system for added power and steadiness they move as if in a groove. I meant to remain but an hour at Nassau Lake, but I became interested in a lazy pickerel, and the next car found me running and waving my fish as a signal. They do not stop on fish signals, but it did not matter. I went back to get even with the lazy pickerel.

I should have fished more continuously through the State had trolley connection been more complete. Often from the smoke and the choke of the flying train I caught glimpses of ideal spots where I fain would have lingered. But trains have a way of tantalizing you with these things. They refuse to stop at the will of their patrons, and besides, your fair is paid to some point far ahead and not contributed five cents at a time with continuous stop-over privilege. No, by steam you cannot fish as you fly, while by trolley it is the ideal method. You get off where it pleases you, and you lose little by doing so. If the sport prove poor you will find it out before the next car comes along, and you will have to wait only thirty minutes or an hour, with no long tiresome walk to the station. I laid off at Skaneateles, Cayuga and Seneca Lakes, and I fished the wide river above Niagara Falls. I did not care so much for the latter sport. The chap who rowed persisted in recounting stories of people who had gone over the falls, fishing just as we were, and in figuring what would happen to us if he should lose an oar. Remembering how many times in still water I had done that very thing, and pawed and clawed about for an hour before I recovered it, I could not altogether enjoy the very excellent black-bass fishing to be had in those fair but treacherous waters.

The trip across New York was distinctly an exploring tour. At times it was well-nigh impossible to learn just where trolley connections began and ended. My map showed a line complete from Albany to Gloversville, but it was not until I was actually on the car—a beautiful chair car, and a road as straight as the crow flies—that I learned that Schenectady is the present terminus, beyond which information was vague.

I suppose I did ask a good many questions, for a clerical old gentleman who occupied the seat with me on the train beyond Schenectady was moved to comment on the fearless manner in which I sought information of everybody within reach. Later, he confided to me that he was himself lecturing on the Journey Through the Wilderness, twenty lectures in all, including the Tabernacle and the Sacrifice. After this he applied himself to a little book called "Devotedness."

I was the first passenger over the line now complete between Herkimer and Rome. I went over in a construction car with a dark-browed consignment of Italian labor. Skirting the hilltops through the June evening, with the Mohawk Valley outspread all below, I recall it as one of the picturesque incidents of the trip. This line is being extended eastward from Herkimer to Little Falls, and when connected through to Amsterdam and Schenectady will complete one of

the finest stretches of long-distance trolleying in the land.

Indeed, I have never realized how beautiful is the Empire State until I traveled through it by daytime only, and in this deliberate manner. I have seen it as one might have seen it in the old coaching days. Of course, it was June, yet I cannot imagine a season that would destroy the beauty of the wonderful lake country, or rob the Mohawk Valley of its charm. I have been over this country before, whirled through by night and whizzed through by day—knowing nothing, seeing nothing except a kaleidoscopic panorama of unreality, mingled with a smell of bituminous coal. From Skaneateles (they pronounce it "Skinnyatlas," a beautiful place, deserving of a better fate) the trolley runs to Auburn, and it is a ride through one of the world's gardens. Comfortable-looking David Harums and sweet-faced women and children waited at pleasant dooryards for the car, or getting off disappeared down green lanes to a land that must be fair and peaceful, the people seemed all so contented and happy.

There is yet not much electric line beyond the Lakes. Rochester has plans for connecting with Syracuse and Buffalo, and one line in operation to Sodus Point, a resort forty miles distant on Lake Ontario. The interurban promoters assured me, with that interurbanity which is a part of all electric promotion, that the long gaps would be closed up almost immediately, but I did not consider it safe to wait. From Rochester I took steam for Lockport where another steam road—the old Buffalo and Lockport branch of the Erie—has been converted into a fine electric line, over which splendid new coaches make fifty miles an hour and electric engines pull freight trains of twenty cars or more at an eighteen-mile speed. By this road I made Niagara Falls and Buffalo where the way in New York State ends, except one three-mile bit between Dunkirk and Fredonia, a small sporadic case which I did not investigate. According to my map, there is a line projected from Buffalo to Westfield, and to Chautauqua on the Lake, but I did not notice anybody working on it me along, so it is probably still a road ns, as every road must be before it is steel, and power, and swift reality.

There is but one trolley run in the Pennsylvania neck, a stretch of sixteen miles from Northeast to Erie, completed last year. I traveled on it through a land of vine and song, for there are vineyards all the way, and it being Sunday, services from the village churches echoed peacefully over the June fields.

But now came the great State for the interurban traveler—Ohio, the home of the trolley. With the exception of a short gap between Ashtabula and Painesville, soon to be closed if plans are made good, there is complete connection from Conneaut to Toledo, with lines extending into Michigan from Toledo, and branching in all directions from Cleveland, Columbus, Cincinnati and Dayton. It is said that nearly nine thousand miles of traction road are built, under construction, and planned in Ohio, and that about two hundred companies with an aggregate capital of half as many millions have been incorporated within the past three years. Three great syndicates control most of the Ohio roads, and the fact that one of these failed recently—through being involved with outside interests—yet recovered within a week, richer and sounder than ever, would seem to indicate that the Ohio interurban situation merits public confidence.

It required a day and a half to cross Ohio, though I spent half a day in Cleveland, several hours in Toledo, a night in Norwalk and did not hurry anywhere. The scenery and the fishing are not as good as in New York State, or it would have taken me longer. The cost for the 158 miles of trolleying was $2.75, and the average rate of speed, including all stops, something like twenty miles an hour. Frequently we traveled at double this rate, and the swift evening ride from Cleveland westward, along Lake Erie, with the peace of early summer upon the land and the sun dropping down to the placid water, is a joy that will not quickly fade away. I had been told that I should find trolley sleepers and dining cars in Ohio, and I had been looking forward a good deal to these luxuries. I found no dining cars and the only car of rest was the funeral car at Cleveland—a black, sombre affair that conveys to the cemeteries a funeral complete at nominal cost. What I did find were numbers of large express cars, in which all sorts of

things, even to horses and cattle, are shipped, often loaded directly at the farmer's door and conveyed safely and swiftly to their destination.

I was especially impressed by the use which the Ohio farmers make of the electric roads. They do not now find it necessary to drive to town with their farm products. They get on everywhere with baskets of eggs, fruit and vegetables, and go home laden with their supplies. No more taking the horses from the plow, or chasing the family nag up and down a long field, to drag through mud or dust at last to the village—a tedious trip in, a toilsome journey home at evening. Nothing to do now but load up the baskets, signal the car, and clang, buzz and away to town—to arrive there quickly and cleanly, in time to finish business and be home for dinner, or to go on to the next town or city, if village markets prove unsatisfactory. And all at so slight a cost. The team left at home can earn enough to pay the fares over and over again.

I was further impressed by the fact that everybody here seemed to know everybody else. No matter where, or how far apart they got on, it seemed to me that every new passenger was greeted as an old friend by all the others. The car was well filled most of the time, and we were like an excursion party all the way from Norwalk to Toledo, a run of sixty-one miles. That the interurban trolley, with its cheap and rapid transit, is a distinct social factor cannot be doubted. As for the conductor, he knew everybody; not casually but intimately, with a minute knowledge of their family ties, their interests and their hopes. He also knows me now, for we held familiar converse as the miles sped past and sapped one another dry of information.

From Toledo to Detroit is a splendid ride, and I regretted that the short stretch of completed line between Monroe and Trenton, through some financial delay, had not been put into operation. It must be opened soon, for it is one of the best constructed lines in the world—double track, rock bed and with the heaviest steel rails. Seventy to eighty-pound rails are the rule everywhere, such rails as are used on the best steam roads. The Detroit line that is in operation is straight and smooth, and fifty miles an hour are easily made by its fine electric coaches.

From Detroit, electric lines branch in every direction, and the interurban companies issue handsome folders, timetables, and dainty booklets of the scenery along their lines. Indeed, it seems to me that as a single city Detroit rather leads the interurban procession. A published list of the distances, fares and running time from Detroit to towns reached by electric railways shows that Port Huron, Flint and Jackson are the farthest terminal points yet reached, the last named being seventy-six miles to the westward, three hours and forty-five minutes' running time, fare $1.05, or at the rate of 1¼ cents a mile. My map had shown this line complete to Kalamazoo, but Jackson is today the getting-off place, as Omaha and St. Joe were once the end of steam travel.

I made the trip to Jackson on the morning of June 18th,—a perfect morning, once outside of Detroit. Not that I would cast a stone at Detroit. It is a beautiful city and means to be clean. There are even "Please Do Not Spit on the Sidewalk" signs on the street corners, but like all Western cities Detroit consumes soft coal, and so long as it refuses to use smoke consumers it must have blackened buildings and murky streets.

I enjoyed the trip to Jackson. The way lies through fair cities and pleasant fields, while the coaches on this line are in some respects the best I have found anywhere. They are very long, with finely upholstered seats, water and toilet conveniences. The West has been always in the lead in the matter of rolling stock; the farther west the better the cars. Another thing that impressed me on this line, as well as on other interurbans, was the brief pauses made in even the larger cities.

"How long do we stay in Ann Arbor?" I asked of the conductor. I had a sort of an idea there would be time to look about the town a bit.

"We do not stay at all," he said. "We go right through, except where we let off or take on a passenger."

And this was so. We traversed choice residential streets, and passed through the chief business centres of several fine cities, pausing here and there to accommodate

passengers, then steadily onward again to fields and highways.

It was well on two o'clock when we reached Jackson. I had been a little more than eight days coming from New York, and this seemed the end of the way. But now I learned that reaching from Chicago eastward there was a trolley road to Hammond, Indiana, just across the Illinois line. This would land me at my destination by the approved mode of travel.

I knew nothing of Hammond but, rising next morning, I looked out on a column of smoke that seemed to drift across the world, and beneath it doomed cattle, huddled in their pens. I did not linger there. The trolley whirled me northward, over bridges, through motley suburbs, past great steel mills, overpowering, terrible, even artistic in the forest of unbeautiful chimneys that forever exhale mighty gaseous volumes of every shade and hue. I could imagine the horde of half naked, muscular and besmudged toilers that within those blackened walls were forging bands and sinews for the world's industry, but I did not pause to see them. I did not stop until I had reached Jackson Park, where this final interurban way ended. And here, where nine years ago we loitered wearily up and down the White City, my long trip came to its peaceful close. It had taken nine days, fifty-seven changes of cars, and fifty dollars in cash to cover something like a thousand miles of electricity and steam, about one-half of each. Without views, interviews and fishing, it could have been done in a week, allowing ample time for sleep and meals. Also, by a dietitian and strict economist it might have been done for less money, but it seems to me he would have missed a good deal.

I like trolleying. I like to stand out on the rear platform and talk to the conductor while we are speeding up hill and down, through daisied fields and over crystal brooks. I like to make the acquaintance of my own country in this pleasant way, often acquiring intimate knowledge of many goodly cities whose very existence has been unsuspected heretofore. I like to ride through the best parts of a town, and not go rumbling and jangling through the swampy and squalid environs that are [illegible] to railroad right-of-ways. I like to pay my fare five cents at a time, with the privilege of getting off at any place I may select at a moment's notice. It somehow makes me feel financially safe, as if I were taking a little jaunt around home suburbs, and when I reach a terminus I like to get off cleanly and quietly with my bags, without being beset by a dozen howling cabmen and hotel runners.

I believe in trolleying. I believe that it is in its infancy, and that its possibilities are infinite. I believe that within ten years four-fifths of the farms adjacent to electric lines will be supplied with power for pumping, threshing, plowing and other labors, and that many farms will be fitted with small private tramways, making the circuit of the fields, with cars upon which heavy products may be loaded, switched upon the main track and so taken to market. The itinerant photographer, showman and merchant will undoubtedly avail themselves of electric transportation, which will convey them at smaller cost than steam and land them in the choicest location for patronage. The peddling wagon of the old days may become a traveling trolley store, offering its wares at every gate along the route.

Then there will be the house-trolley that will glide over the country at the will of the occupant, as house-boats and private yachts are now traversing every water-way. The private steam-coach has been always a costly and not altogether satisfactory luxury, but the house trolley—a cool, clean and complete little home of several rooms, supplied with electric light, heat and cooking apparatus—could be constructed and maintained at comparatively small cost. Expense for transportation would be slight, for with its own motor it would mean payment only for use of current and tracks and a temporary switch at any point where the occupant might wish to sojourn. Perhaps Americans, with their natural unrest and tendency to peregrination that now causes them to gravitate from place to place and from apartment to apartment, will eventually all live in houses on wheels that shall follow with the will of the occupant from city to city and from clime to clime. Trolley building does not require the heavy grading and deep cuts necessary to the construction of steam roads, with their ponderous engines and their

massive trains. Wherever a wagon can go the trolley may follow and eventually every wagon road will have become a trolley road with its pleasant, swift travel that brings communities closer together, unites their interests, promotes their means of education, multiplies their recreations and elevates their ideals.

Coming up the Mohawk valley, I saw side by side the four great methods of transportation—the earliest and the latest—the creeping cart and canal boat, the speeding train and the trolley. It was an interesting study in the march of events, an object lesson in the momentum of human progress. And watching it I could not but believe that electricity must prevail. Certainly the cart horse and the canal-boat mule must soon give way, and remembering that already more than one railroad has abandoned steam for electricity, thereby being able to accommodate their patrons with many cars a day instead of one or two trains, long hours apart, it seemed to me that many railroads in time must resort to the great new power, at least for their local traffic. Whether they will convert their own roads, or seek to control the traction lines that parallel their rights of way can only be surmised. The situation is still somewhat elemental, but Time, that solves one after another all the problems prepared by busy and ambitious men, will eventually and in its own way solve this one of electricity, steam and steel.

AN INTIMATE VIEW OF PUBLISHING

THE AIMS OF PUBLISHERS AND THE REWARDS TO WRITERS—THE INTELLECTUAL EFFECT OF POPULAR BOOKS AND MAGAZINES—A CLOSER RELATION BETWEEN PUBLISHERS AND LIBRARIANS

BY

WALTER H. PAGE

I HAVE been asked by a committee of the American Library Association to say in what way closer relations might be maintained between editors and publishers and librarians; and a series of questions has been put to me.

The first question is, "Is the publication of novels necessary to a publishing house?" Much depends on what other books the publishing house has, and a good deal more depends on the character of the novels. The reasons for the publication of so many novels are these—they bring a quick return, when they bring any return at all; and the publisher has a hope that he may hit the popular fancy at the right angle for an enormous edition. But I venture the assertion, that as much money is lost by publishers in publishing novels as is made by them. A publishing house can exist without publishing bad novels; but I think any publishing house that has an opportunity to get a great novel would not do its duty if it failed to publish it.

Question two: "Does the number of book manuscripts increase? and do they show improvement from year to year?" They do increase—increase in much faster ratio than the population increases, faster than Mr. Carnegie has built libraries, faster than the number of librarians. Whether they show improvement from year to year, I venture this guess: the number of illiterate or hopeless manuscripts is decidedly decreasing. Publishers receive by no means so many as they once did from wholly incompetent writers. The number of great manuscripts—well, they have never been numerous. The number that tempt publishers, because they are written with the outward form of literary excellence, increases enormously. All they lack is the breath of life. Those who are wearied with the number of printed books that ought never to have been published ought to remember what the publisher saves them from!

The next question is: "Are publishers less willing than formerly to publish books of literary value that entail a present loss?"

If a publisher is wise enough to recognize in manuscript, among the books which he knows will entail a present loss, one that will bring an ultimate profit, he will publish it; and if you have the wisdom to show him which books there are that may be depended upon to bring an ultimate profit, he will welcome your help.

Let me turn to the next question: "In other words, does the present tendency in publishing show a wish on the part of publishers to develop literature, or contentment to be mere merchants of popular wares?" There are publishers and publishers. I have never known one that objected to being a merchant of popular wares. On the other hand, the publisher who is worthy of his calling takes a pride in throwing away possible income from trashy books for the sake of publishing what he hopes will turn out to be literature. He prefers the loss of a popular bad book to the degradation of his list.

The next question is, "Is not the tendency of popular magazines and novels to degrade the popular taste and style?" No; because those people who read those magazines and those novels that have no intellectual value read them for the same reason that they play ping-pong. They have nothing to do with the intellectual life whatever, and they give as innocent amusement as progressive euchre. There are yet persons in the world who regard anything that is bound as a book, no matter what it contains. Physically, I suppose it is a book. But many such things are simply soiled paper, others are books, others are literature. Those magazines and those novels upon which people waste time—they would waste their time on something else if these did not exist. I maintain that the man or the woman who has ever contracted the real reading habit, and has developed the intellectual life, is not disturbed by all this flow of frothy matter which comes because we have fast presses, cheap paper, and cheap postage. It has no more to do with literature than so many other popular pastimes. It is a delusion to conclude that, because an idle man reads a silly book, he would read a good book if he didn't have the silly one. That kind of man will never read a good book. It is the duty and the privilege of librarians to change his taste if they can.

The next question is, "Why are the popular magazines not better?" That is, I suppose, why are they not more interesting to the intellectual class? I can answer that question with some feeling and with some accuracy. I am absolutely sure of this: the reason why they are not more interesting to the intellectual class is that the intellectual class does not write in a more interesting way. There is no other answer. I should be the last man on earth to call even the best of the magazines good. I have had my hand in making—I should not undertake to say how many; but I have never made one and I have never seen one made that was more than a pile of débris. The reason that you have rubbish in the magazines is because the editors cannot get anything better, and the audience that blames him is itself blame-worthy. Why do *you* not write better?

When we talk about the degradation of style by the bad contents of the magazines, I have one very emphatic word to say. The men who write, or who think that they write, our contemporary literature,—I mean the men who have some happiness of style,—seldom have any ideas. The men who have ideas cannot express them so that an educated man takes great pleasure in reading them. Of course, this is a sweeping generalization. No man need receive it unto himself, but he is at liberty to apply it to all his neighbors. The truth is, our style must become better. We do most things better than we write. Effective style is changing. The somewhat leisurely style of a generation or two ago pleased the small circle of readers within its reach,—a mere little company which by comparison might have been got into one room, a company who had leisure and who liked to read that kind of writing. Now the great world is forging forward in all its departments of thought as in all its industrial development, and style suited to our time is different. The man who would write convincingly or entertainingly of things of our day and our time must write with more directness, with more clearness, with greater nervous force; and the teaching of composition and the practice of style have not kept pace with the development of our intellectual life in the United States. I should, as poor an editor as I am, undertake to make a better magazine than you have ever seen, if I could find writers who could write well enough

about contemporaneous subjects; and every other editor who is struggling to do his duty would tell you the same thing.

Next, "Why do they—that is, the magazines—not publish more critical articles?" In the first place, nobody cares for them; in the second place, nobody produces them in an interesting fashion. A magazine deserves to die that is not interesting. Now, the gentlemen and the ladies—young ones, generally—who write critical literature, do not make it interesting. Besides, we have never taken to critical literature. There is, perhaps, enough in our language to make a respectable number of volumes in your libraries; but nobody ever asks you for them, and you seldom take them from the shelves.

The next question is, "Is writing adequately paid for?" Great writing never was and never will be. Even good writing never will be. But in this day and generation, poor writing is paid for twice and thrice. Since I have known the current prices of ordinary writing the hack rates have doubled, and instead of living in Grub Street, the hack can now live in an apartment. The ordinary rate for hack writing is higher than the wages paid to carpenters and plumbers and other journeymen; but as for paying for literature—never. There is no way under heaven whereby it can be paid for. Yet this is true: the income of authors is constantly rising, and there are tasks—delightful and useful tasks—in book-making and in magazine-making, which every successful publisher would be willing to pay well for, if he could find the men and the women who could do them well enough.

Now concerning the relation of editors and publishers (for I regard them as one, because a man who edits a magazine and a man who conducts a publishing house do one and the same thing) to libraries and to librarians: We both serve the public. We have our separate problems, yet our common great master is the reading public. This is the only master that is worth serving in a democracy; and, when you do your duty and your institutions reach their highest usefulness, and when I do my duty and my institution reaches its highest usefulness, we are simply living up to our obligations to our democracy. Since we are both driving at the same great purpose, how do we work together, and how might we better work together? Our chief relations now, I fear, are financial. The publisher comes to the librarian, or sends to him, saying, "For the love of Heaven, buy my books." The librarian answers curtly that he charges too much for his books, forgetting the truth that all good, new books are too cheap. They are so cheap that publishers will have to raise the price. There is a confusion of thought between the cost of magazines and of old books on the one hand and the cost of new books on the other hand. Magazines are cheap because the advertiser pays for them. Newspapers are cheap because the advertiser pays for them. Books that go into great editions are cheap because when you put out a great edition, the cost per copy is lessened, and the book can be sold for a very small profit on the manufacturing cost. But when you have books that are new, and the authors must be paid, and the publisher has to bring them out after great expense to maintain his plant, the current prices are lower than they ought to be, and lower than they will long be, for books have not even the cheap postal rate that newspapers and periodicals have. I say this not at all with reference to the Library Association's present contention with the Publishers' Association, but with reference to the general proposition that good new literature, which is never published in great editions, is cheaper than it ought to be. The margin of profit to the author and to the publisher has become almost nothing on good books, of which less than three or four or five thousand copies are sold; and it is the sad experience of many a publisher to find that he must sell two or three thousand copies of a book at the price that the public now pays for it before he has got back his outlay, to say nothing of his running expenses.

But it is not the financial relation between librarians and publishers that I have in mind, but rather a closer intellectual relation.

The librarians are good enough to report to the publishers—and they do a very genuine service, which every publisher appreciates—when a book comes to them that is not well made. They report also inaccuracies which they find and which their readers find in books. That also is a favor which every

publisher appreciates. They also send to certain literary periodicals a list of the most popular new books. Such a list does a certain advertising service, but it is transitory and amounts to little, for the first popularity of a book is a judgment of it that is not worth taking into serious consideration. Contemporary criticism of fiction, for instance, is not worth the reading or the writing down. Every publisher that has worked long enough to know the difference between books and literature understands that contemporary criticism has value chiefly as a method of publicity.

But there is one service which the librarians can render to the publishers which would enable the publishers to render a greater service to the public. Report what the public wants. I mean the noble and dignified wants of the public. Librarians are in a position to know what the intellectual community about them desires for its intellectual development, for they occupy a closer relation to the community than any other class of men and women. It would be a suggestive experience if publishers could sit for a time at librarians' desks and get their point of view. When I say report to us what the people want, understand me, I no not mean the shallow popularity of some transitory idea, but I mean their real intellectual needs; for the publisher wishes to serve his public and to serve it so well that he will build himself an institution on that service.

For instance, what kind of books, what great group of books, do you infer ought to be taken in hand for the next generation of readers? In the memory of the youngest of us, American history has been re-written, and there were librarians twenty years ago who could have foretold that it would at once have to be rewritten. More lately there has sprung up a great group of books about nature study, many of them very excellent books. The librarians must have seen how the teaching in the schools and the growing love of outdoor life were bringing about a chance for such books.

Of course, really great books cannot be foretold. Really bad books you need never pay attention to. They are not worth discouraging, for they are sure to die young. But it is that great middle class of books, information books, books which serve a useful purpose, that form the greater part of what the people read and the greater part of what the publishers publish. These can be foreseen, ordered, prepared; and it would be a great service which the librarians would render the public and that I assure them the publishers would be thankful for, if librarians gave us systematically the benefit of the conclusions which they draw from their daily contact with the people.

The librarian a little while ago was a mere custodian of books; then he became the distributor of books; now he has become the director of the reading of the people. That is great growth. Now, if he will go one step further and so far anticipate the intellectual needs of the people as to suggest what ought to be done to meet those needs, then I say the profession will reach its fullest bloom.

The publisher in the meantime may be either a mere manufacturer and salesman of books, or he also may have a positive and creative function; for he can encourage the making of good books and build an institution if he can catch enough suggestions of the way in which the intellectual development of the people is going.

All that I have said about books is applicable to magazines. If the magazines are dull, there is one way in which librarians may help to make them more interesting. There is not a magazine editor in America—I mean, one worth considering, who is trying to do a serious task nobly—who would not be under profound obligations if they would tell him what the people would be interested in, what would elevate them, and most of all who under heaven can write it well.

The publishers inflict books upon the librarians year after year, sending tons of trash and complaining that the librarians do not buy it. The librarians, in their routine, card-catalogue all dead literature to a double death, so that a man who wishes to find one single fact once in ten years may be sure to find it in the libraries whether a man can ever find a new book there or not. And these things are inevitable, I suppose; they are necessary parts of routine work. But let neither of us forget that our great work is the work of institution-building, for that is the primary impulse of all active intellectual life. The librarians are making

the libraries one of the most useful institutions in our civilization. The publishers are trying to make their publishing houses useful institutions also; but we shall all be duller than the dullest magazine and as monotonous as the most rigid card-catalogue if we do not throw into our labor some imaginative, some constructive purpose. If librarians see through all the routine of their work the final purpose of it,—which is to quicken the intellectual life of the people,—then the profession becomes ennobled. Without that they are mere clerks, handing books across a counter; and without that a publisher is a mere dealer in soiled paper bound between covers. We have not yet touched the outskirts of the intelligence of this growing democracy. Constructive publishers and librarians must let their imagination work upon the problem, how we may really reach the attention of all the people so as to quicken their intellectual life.

LABOR-UNIONS FROM THE INSIDE

HOW THE "BUSINESS AGENT" KEEPS THE UNION ACTIVE—STRIKES THAT THE PUBLIC NEVER HEARS OF—THE UNIONISTS MEAN "DICTATION" WHEN THEY SAY "RECOGNITION"—EMPLOYERS BEGGING FOR WORKMEN—A FIRST-HAND STUDY MADE BY LIVING WITH THE ORGANIZERS OF LABOR

BY

M. G. CUNNIFF

Mr. Cunniff will continue his first-hand study of Labor Problems, in the succeeding numbers of THE WORLD'S WORK

THIS summer I have eaten, drunk, smoked, lounged, walked and ridden with labor-union men, watched them at work and at play, talked union, joined a union, lived in a union atmosphere. But since no two unions are alike, no two union theories, no two contracts, no two ruses on the firing-line, from the day I went forth with a "business agent" to the day I smoked in the afternoon on a pile of bricks with a union man out of a job, whose only possessions were a union card and a wingéd nickel, and later broke bread with an International president—my experiences taught me to generalize less the more I learned. Here I tell, not how all the unions work—no one man knows that—but simply what I saw and heard of union life among the various building trades, the cigar-makers, the printers, the steel-workers and other organized craftsmen, chiefly among the fighting men who conduct the strenuous work on the firing-line.

These are the business agents, once called "walking delegates." Of less instant interest are the secretaries, the presidents, and commitees and delegated bodies, though they, too, do the fighting. The rank and file for the most part merely pay their dues and follow the officers' lead, furnishing the strength of unions, but in the main a latent strength. Of their union methods I shall write in another article.

An exuberant constitutional agitator, never still, was the agent that I went organizing with in the middle of July. He had been thirty-two times discharged as a workman "for carrying shop grievances to employers," he told me. Now his pay is $21 a week for working from twelve to one and from five to six—the hours when men can be seen at the mills; and he receives $10 extra for each new "local" he founds. A Socialist, with no property, no savings, spending as he goes, he has no ambition beyond agitating successfully and building up his union.

"I have been insulted," he said, "beaten, kicked downstairs. In one State my case is the precedent for injunctions against picketing; in another—I was called there in a strike—they dubbed me interferer and Anarchist and sent me to jail."

"A hard life," I suggested, for his face showed scars, and gold teeth hinted at assaults: he told me the stories.

"No, I enjoyed it," he chuckled. "First day I organized the prisoners. Second day we boycotted a poor 'scab' printer. Third, we sent a round robin to the sheriff for better food—and got it. Fourth, inspired a strike. . . . Here we are!" And getting off the car we walked down a windy, sawdusty street lined with bare bleak mills, whirring cicada-like in the heat.

He had no permission to enter the only factory still unorganized: the owner recked not of business agents. Even the owners of the other mills were unaware that twice every day for a year this little dark man had waylaid their workmen until organization had crept from one end of the street to the other. It still went on. A shrill steam blast cut the air, the gates were flung back for the pouring crowd, and like a trout for a fly, the agent leaped for a man he knew. He moved from man to man by introduction—nothing haphazard.

"Who's the best man to see?" he shot out.

"Black," said the workman, leading the way to a window where Black leaned grimily over his machine, an American, perhaps forty.

The other men watched us curiously.

"Glad we're organizing," said Black a moment later. "D—d glad"—embracing me in his comprehensive gaze. "Some folks think we ought to be contented. Work like the devil! Coöperate with our employer! Boom the business! Help American industry! Why that — — skinflint"—this was his employer—"has worked us overtime for the last ten years, every time there's a rush, kep' us at it evenings and Sundays, with never so much as a 'Thank you.' The kickers were fired."

"Weren't you paid for it?" I interrupted.

"Paid," he snorted, "no! And ask some of those smug people who prate about coöperation, why in hell we should coöperate with a man like that. Do *we* get any good from that overtime? But we'll get it now, you bet," and his satisfied grin included us both.

"Black," said the delegate, "I want you to take this application blank, enter all the men in the shop, mark those who ain't right, and I'll come back at five and talk with 'em." This is the regular method—to use one man as a stalking horse for the others.

"Everybody's right," said Black. "Want the foremen?"

"Can they hire and discharge?"

"Yes."

"Don't want 'em. They couldn't serve us and serve the boss too."

"Well, we've got all the rest"—from the other mills the fever had spread. "And when," he went on, "do things begin to move? We can tie this fellow up in twenty-four hours?"

"Whoa!" said the delegate. "Hold your horses! I never yet saw a crowd that didn't want to strike right off the bat. There ain't going to be any strike."

Black was dumfounded.

"Well, but I thought——" he stammered.

"Oh, we'll get a Saturday half-holiday by October, or eight hours, or more pay, or 'overtime' by asking for them all and compromising. Leave that to me. Just get organized. I'll fix the rest. But no strike—if we can help it. Why a strike without a treasury means that you'll stand in the street, a fortnight after, and let the sun shine down your throat and think you have had a meal. How many men would stick on that diet? Half? No. P'raps not more than a tenth. That's about all you can count on in most strikes. We'll force these people, but not by striking. Send me over that list when its ready and we'll call a meeting." Then we started for the car.

That afternoon and many afternoons thereafter I spent among other business agents in New York, in Boston and elsewhere. Some like G— were organizing: others were busy longer hours, going from job to job and from factory to factory, attending to labels, managing strikes—there are ten strikes a week in the building trades in New York City alone—settling trouble—or making it, according to point of view—between employer and employee, serving on committees, and some loafing through the summer afternoons. There was solidarity among them. Every large city has a Building Trades Council: the New York council meets on Fifty-fourth Street, near Third Avenue, the Boston one on the corner of Bennett and Washington Streets. The council is composed of the business agents of most of the building trades—the aristocratic bricklayers even conforming, "clinkin' their trowels and hollerin' 'Hup' in their own little garden," one delegate said, "as far as the Central union and the Federation are concerned: they have their graft and they

mind it. But with us here——!" And what do the tri-weekly meetings in that red plush hall on Fifty-fourth Street mean! That a band of lynx-eyed labor scouts continually scour the city for violations of union principles, and gather every other day to swap notes and plan. "Better go now," said a delegate one afternoon I was in the room as the body came to order. "Here's where we begin to rob the employers. We must do it secretly," and his eyes twinkled at his joke. But the ten strikes a week were explained: what could escape this band whose very bread and butter depends on their keeping alive to every chance to benefit their constituents! A non-union man, let us say a steam-fitter, goes to work on a growing structure. That means a lost chance for some unemployed union man on the business agent's list, and if the steam-fitters' agent has happened not to visit the building, some other agent has, or the word is passed from union man to union man till it reaches an agent. At the meeting—say on Tuesday—the notes are exchanged. The proper agent hies to the employer. Obdurate, he is reported to the meeting on Friday. Saturday morning there is no sound of hammer or clink of metal on the building; the scene is aggressively quiet; building has stopped—every trade out. On Monday the offending non-union man hunts for work, a union man has cheerily taken his place, and the work goes on.

"How long are these strikes—these ten a week?" I asked an agent.

"They average a day," said he. "I'd be ashamed of managing one that lasted longer than three. One man let us strike for a month, but it cost him $2,000 to get the men back. We fined him full wages for the idle time—and now no more strikes for him."

To this very agent came three employers. I saw this little episode.

"We want men," they said.

"I haven't any," he replied.

"Can we put on non-union men, if we ask them to join?" said they.

"No," said he.

Expostulations ensued. He said nothing. The employers pleaded. Finally he turned to another agent.

"Can you furnish these men?" he asked.

The other agent could—and did. But I gasped. Where was the traditional relation of "master and man?" The employers begged for the workmen, not the workmen for employment. The workmen made all the conditions, eight hours, four dollars, double pay for overtime and all the rest of it. A new dispensation! And to make one union generalization, let me say that in one form or another this is what union men regard as the right, normal, natural procedure. "Equality of bargaining," they say. "Take my labor on my conditions or leave it."

Consider the bridge-builders. Said I to their agent, "What would happen if the Pencoyd or Steelton bridge-builders were aggrieved in Africa or Asia?"

"The men would strike in New York," said he. There is union power reaching round the world. This agent has served the union for the last five years at ten dollars a day and expenses, not here alone, but abroad. Like other union officers he thinks union as you and I think the "shop" of our daily toil. He goes armed. He shuns no trouble.

I asked a member of his union about him.

"He's ALL RIGHT," came back. Why not? None of his men are out of work; their pay is four dollars and as much more as they can earn; their day is eight hours; they have a practical monopoly of their trade. The business agent has done it.

"I have heard it said," he remarked to me one evening, "that we fatten on the workingmen, the deluded workingmen. These boys, five years ago, worked ten hours a day for two dollars and seventy-five cents. Each contributes half a cent a day to my salary; can they afford that from their dollar and a quarter added pay? Is the half a cent a bad investment?" and he walked quickly toward a meeting of his local union, to be stopped in the hall and on the stairs by seventeen whisperers—I counted—on urgent business. A successful politician could not be more beset.

The label work of business agents, or label agents, ran, I found, from sitting all day in a barn sponging off a thousand spurious labels from a consignment of cigars preliminary to sending them back to a wildly-telegraphing, much-wrought-up manufacturer, to this: I met an agent who had left his bench and come to New York to coerce a manufacturer who already had the label. There had been trouble in his shop; it was not thoroughly unionized. He had received an order for $1,000 worth of cigars from a jobber. With

the jobber's consent, the agent was to tell the manufacturer that unless he unionized his establishment to the union's taste, that order would be revoked.

"They call that 'dictation,'" said the agent. "But let me tell you that it is only by 'dictation' and by 'recognition' that unions can get the main objects they are after. I have read newspapers whose editors thought poor pay or long hours or abuses good grievances, but not 'dictation' and 'recognition.' Does it ever strike them that we can't get the better pay and the shorter hours without 'recognition' and we can't keep them without 'dictation'? I 'spose you can find more crazy theories among union men than anywhere else —some of them are all theory—but there never was a crazier theory than that wages and hours were good grievances and 'recognition' and 'dictation' not. Pah!"

The talk of the idling agents I shall not repeat, though this much I saw from its constant circling around unionism, not theory, but concrete fact of boycotts, and strikes and quarrels between union and union, that the union movement is not so much a spontaneous movement of workingmen as the result of agitation by "advanced men" as they call one another. They are not lazy drones seeking an easy berth—though some are—they are rather men whose ambition has run to being large toad in small puddle, rather than small toad in the big puddle of the world's competitive activity. And yet genuine altruism is no small part of their motive.

I met one whose pride was a technical city position gained through work he had done at Cooper Union and in a correspondence school: this position he held in addition to working at his trade and managing union affairs. Another, who also made excellent pay in his trade, took pride in three things close to his heart—his craftsmanship, the growth of his union under his attention, and his son, a bank clerk. He might also have taken pride in the personal control he had over men in his union, apart from all business matters. Said one, "He can do more with them than the priest."

Thus I found the business agents, Germans, Irish, English, Americans, Socialists, fighters, aggressive men, men of bluff kindliness who never had trouble with employers, industrious lazy men, drinking men, total abstainers, comfortably situated, comparatively poor, honest men, and rogues—perhaps. Only at second hand have I heard of the rogues, but as other business agents have told me of them, no doubt there are rogues. Living with these men—not the union members, mind, but these professional agitators—I lived in a world that showed our industrial life a-tremble from beneath with a never-ceasing ferment.

The pathetic and tragic side of union life falls in the way of the secretaries. "Grafters" come to beg—with a card, with a bogus card, or even without a card. Wives come with complaints about drinking husbands. "Kickers" come. Men out of work and strikers must come. Once a week or once a month the members appear to pay their dues.

I watched the distribution of out-of-work benefit at "Big Six" Typographical Union of New York. Sixty cents a month the members pay for dues and one per cent of their wages for the out-of-work fund. To the union office go the men, when unemployed, day after day to sign the out-of-work book, and perhaps to wait about for a call to work. Then every Friday morning at nine o'clock a long line files by the bookkeeper, each man receiving a check for three dollars, which Secretary Healy pays. Here and there in the line is a superannuated printer, twenty-five years a member of the union, old, white-haired, paying dues no longer, but drawing the three dollars a week as a pension till the day comes when the union books shall show him credited with one hundred and fifty dollars for burial; and here and there is a woman, wife of a sick husband or perhaps of a drinking one, —for no out-of-work benefit goes to the married man who drinks: it goes to his wife. From time to time the telephone rings and the man at the top of the out-of-work list is called to go to work. The employer is bound to take him, whoever he is, but not to keep him: the union does not bolster incompetents. Accordingly, back in a few days come the ne'er-do-wells, some of whom are in every union, back to the bottom of the list again to pay their sixty cents a month and draw, four weeks out of six, their three dollars every Friday. The cigar-makers have a similar system, but one union, in Boston, took pride when I was there in having no out-of-work list. An unemployed member came in. He declined three places open to him before he found one to

suit. I asked the secretary if the power implied in this excess of demand was held by contracts.

"No," said he, "we've passed through the contract stage. We submit a bill of prices. If the employer consents to pay it, we organize the shop and give him the label. Enough have found it advantageous to keep all our men employed."

Now paying out-of-work benefits and receiving dues means that the secretary of a union handles considerable money. One day I went with a union secretary to a surety company for a treasurer's bond.

"A new rule goes into force this week," said the manager. "A premium of one per cent. above the fraternal society rate for union bonds." He was short and to the point. Later I went back and questioned him.

"Bad bookkeeping," said he. "Some treasurers may be dishonest, but we don't say that. I think they're no worse than any other fraternal orders: we have no evidence that they are. But when there is any doubt, the loose bookkeeping makes a muddle; and, in short, the business doesn't pay particularly—we do not care for it. Some unions, of course, we admit are as careful as any organization."

And they are. The auditing of the Cigar-makers and the Printers is like a bank examination.

It was among these same Cigar-makers, by the way, that I stumbled on some curious facts. All through the unions Socialism filters. Almost every other man is a Socialist, preaching that unionism is but a makeshift, but a step toward a "good time coming" when every man—"Malthus be d—d," one said—shall be able to rear his family in comfort. Among the Cigar-makers I found one union with 2,000 German-speaking members, all Socialists. And here in the secretary's office I found a new human meaning to unionism.

Down on East Fourth Street in New York is Union No. 99. On the office wall that faces the door is a cabinet of funereal aspect wreathed in palms: within are rows of canisters, black, leaden-sealed, impressive. Each bears a name.

"What are they?" I asked.

"The other day," replied Secretary Nowack, "one of our members died in New Haven. A delegation from the union brought his body to New York. It is there."

I looked closer at the rows of urns: each bore a cremation stamp. With no home but the union these men had come home to the house of their brotherhood in death and brotherhood indeed it must be by the clear evidence of such memorials.

That brotherhood is not always the main idea of the unions comes from the clash that sentiment always makes with practicality. A penniless anthracite miner came one Sunday afternoon to the Central Federated Union of New York, where delegates from all the unions meet. I have never seen a contribution-box filled so cheerfully at church as a hat was filled for that bearded miner's relief or any task undertaken more readily than a committee took it upon themselves to find the striker employment. And then the meeting settled down to hear the steam-fitters and the brass-workers hurl recriminations at each other, and to discuss the quarrels of other unions, one with another. The coal-miner awakened sentiment. The trade quarrels awakened the business sense, for, sifted, they come most frequently to this: either that one union asks jurisdiction over work another union claims, where one trade shades into another, or one union, say the Consolidated, claims all the union privileges in a trade as against the Amalgamated in the same trade. These quarrels take up the attention of the national committees and presidents, the executive boards, the grievance committees, and other bodies whose theoretical functions are the safeguarding of union interests from outside rather than inside attacks: the carrying on of open boycotts, the drawing up of contracts, the supervision of important strikes.

Only loosely organized, violently active at points, quiescent at others, constantly torn with internal dissensions, intensely human, the union army I have found to be a great heterogeneous mass, lacking only diffused enlightenment to be formidable to opposing interests.

What the problem is that this army faces and what problem it offers, itself, I saw set forth with dramatic sharpness in a single strike that exhibited concretely all the tactics that the new industrial order has given birth to—on both sides. For ten years the Associated Brewers of Boston have had a contract with the Brewery Workers' Union. This year the Associated Brewers insisted on adding a

clause to the contract permitting employers to discharge employees without explanation and without union interference: whereupon the workmen struck. Here was the employers' side: "We have tolerated impudence from men the union would not let us discharge; we could no longer control our business." Here the employees': "With such a clause they would discharge strong union men until the union lost its power."

The strike was on—hinging on the clause. Tactics? The brewers hired non-union men. The workmen established a boycott and drew other unions into it so that the business of the breweries fell off all over New England: down in Maine, for a typical example, a painters' union established a fine of five dollars for anyone drinking Boston beer. Month after month the union paid strike benefit, non-union men ran the breweries, the product was boycotted. The employers' methods stood out in three documents I saw. They may not be authentic. I think they are. Sheaf One comprised black-listing letters. Exhibit Two was the Constitution of the Brewers' Association, including a black-listing section and this novel provision: that in case of strike the brewer supplying any regular customer of a closed or boycotted brewery should pay to the owner of this brewery seventy-five cents for each barrel delivered until a year subsequent to the end of the strike, and, furthermore, that this product should not be supplied at all unless the owner of the closed or boycotted brewery consented. Exhibit Three was a contract, gained by a striker who entered a brewery insincerely asking for work: it set forth that the brewers, parties of the first part, contracted with the non-union men going in as strike breakers that any settlement with the strikers should include acceptance by the strikers of these "scabs" into the union without fine. There had been no violence; so that there had been no injunctions. But apart from this—for later the brewers summoned the strikers to court for boycotting—this one strike included all the methods of union warfare on both sides—both those assumed for the moment and those planned and provided for long in advance. The whole affair, at the time of writing at a dead-lock owing to the contracts with the strike-breakers—for the brewers finally waived the first issue of the strike—if it proves anything, proves that a labor quarrel may be a bitter struggle in which both sides may humanly feel aggrieved.

ENGLAND AS SEEN BY AN AMERICAN BUSINESS MAN

THE ENGLISHMAN'S ATTITUDE TOWARD NATIONAL AFFAIRS, TOWARD BUSINESS AND TOWARD SPORT—HIS PATIENCE WITH AMERICAN BRAG—WHY LABOR IS LESS EFFICIENT—ENGLISH FEELING CONCERNING THE SHIPPING TRUST—WHAT THE RHODES SCHOLARSHIPS SHOULD AND MAY DO

BY

ARTHUR GOODRICH

"IT is difficult for an American to understand the English point of view," said an active American business man to me the other day. He had not missed his annual business trip to England until last season for many years and had just returned from this year's journey with the contrasts of England as he had seen it two years ago and as it had appeared to him this summer fresh in his mind. "You can develop reasons by the hundred for everything you see, and run a good chance of not even hitting the target. But I'll tell you how things appeared to me and you can draw your own deductions.

"First of all, a great deal of the blatant talk about the American invasion is ridiculously untrue. We talk too much, probably because we are only just beginning to have

something to talk about, and we are emotional people—at least as compared to the English. It is little wonder that the English people look askance at some of the things we do and say. In fact, it shows the fine old country breeding that they stand our effervescence as well as they do, especially as they don't always understand that it is effervescence. Yet in a considerable measure the "invasion" is an accomplished fact, and in no way is it more clearly shown than in the changed attitude of the British merchant and trader toward American business men and American products. Even in two years the suspicious air of the business folk there has lessened noticeably. And as to the product, he who runs may read. The fences are covered and the papers are filled with vivid signs, as noisy as the reddest and yellowest American advertisements, announcing 'Matches, made by British labor,' 'Cigarettes made to fight the American trust; buy only goods made in Great Britain'—although the tobacco came from Virginia; 'Hams grown in England,' 'Trades backed by British capital.' Perhaps the most striking of all the frenzied efforts to appeal to English patriotism for trade is this shoe circular I picked up."

He handed me the neat booklet of an English boot and shoe house, upon the right-hand pages of which appeared cuts of various styles of shoes, faced on the left-hand pages by such paragraphs as these:

"Time will prove that the American boots which are at the moment being so extensively imported into this country, are, except perhaps in point of appearance, inferior to those of British manufacture."

"All the skill that is put into the manufacture of American footwear is directed to one end, that of producing goods particularly pleasing to the eye, the vital question of durability being almost totally ignored in the eagerness of the manufacturer to make his productions attractive."

"On the other hand, wear, reliability, and sound workmanship are qualities which have made a name for the British shoe in the markets of the world."

"I don't need to tell you that advertising of that sort is more than futile; it reads like a frank confession of inferiority. It is as if the only recommendation they can make of their product is that it is not made in America or in Germany. Few people in England or anywhere else will buy a shoe because it is made in England. They will buy the best shoe they can get at the fairest price. When the goods are inferior it is a lie, which the people will soon find out, and when they are not—as they often are not—it leaves the impression that they are. Appeals of this sort are only temporary, for they cannot succeed, but they go to show how worried some of the dealers are.

"But for all the worry that this advertising indicates there seems to be no material change in the equipment or the methods of English concerns except in those which are run by American capital and American ingenuity. They are a conservative people over there with their initiative restrained by centuries upon centuries of traditions and supremacy. They have led the world so long that they do not take the cry of 'Wolf, wolf!' seriously. An American visitor, who, after the fashion of American business folk, has a habit of putting himself in the other fellow's place, has his blood stirred by conditions that his Briton friend will put by with an indifferent, 'Oh, it will come out all right.' And it isn't as if he knew *why* it would 'come out all right,' as if he saw through the difficulties and knew how to solve them. It is, instead, the point of view that things always have turned out well: let this run its course, 'It will come out all right'.

"You see the newspapers placard in large glaring black letters, 'England defeated', and after a few days of such experience you realize that this records no such slight matter as a battle in South Africa, but rather a fact of huge national importance: the Australians are ahead in the day's cricket game. Yes, the English are essentially a pleasure loving people. They never get excited—or, in fact, thoroughly interested—in national affairs. Mafeking night wasn't enthusiasm. It was a spree. As an illustration of what I mean, let me tell you what I noticed when I was commuting daily for a while this spring to London from a suburb. I watched the other people in the train and I repeatedly counted the number of newspapers in the carriages. Not half the travelers read newspapers during those weeks of the most stirrring times England has had for a decade. A vast number were deep in the penny weeklies, *Tit-bits*,

Answers, *The Golden Penny*, papers it is no exaggeration to say Americans wouldn't be paid to read.

"After the Englishman remarks complacently, 'It will come out all right', he is apt to leave his office for the rest of the afternoon and go to a football or cricket game. While he works he accomplishes as much as any one can, but, at most, business hours limit his endeavor. He will not work night and day as many American wealthy men are in the habit of doing. He does business but he doesn't *mean* business. He is not eager for the 'joy of achievement.' He throws his heart into the play on the ball field rather than into the work at the office. Mr. Kipling's lines about the 'flanneled fools and the muddied oafs' struck the centre—somewhat harshly perhaps—of a great truth. The newspapers are full of the latest news about the royalty. These worthies are usually at the race courses or the games in the afternoon. They are at the theatre in the evening and if there is a choice between a ballet at the Empire and 'Faust' at the Lyceum, they are likely to pass Irving by for the ballet. The newspapers have a way of publishing what they call 'stop press news,' news that is important enough to stop the presses to insert. It is almost entirely sporting news, cricket, football, racing and the like. And Kipling isn't the only Englishman who sees the tendency. Here is a letter clipped from one of the papers, written by a Colonist—the Colonies are likely to be one of the salvations of English good sense, I think."

Part of the letter, which was especially frank, read:

"Another case that comes to my knowledge of the appetite of English officials for forms and ceremonies is the question of giving one of your neighboring parks—a place called Richmond, I believe—for use by the London Volunteers.

"This war has shown that you must teach men to bear arms and train them to use them. Owing to London's bigness there seems to be a difficulty in the training. This great open space at Richmond is well suited to manœuvre London Volunteers on half-holidays. Probably if London were to take a ballot on the subject there would be five million votes using this bit of the veldt at Richmond military purposes. The votes against it would probably be a few dozen.

"When I asked my friend, who tells me the inwardness of things, Why is this? he declares, what I should believe to be untrue if he had not told me, that the reason why the London Volunteers are hounded out of Richmond Park is because there is a small head of game there, and that the shooting of these birds is what I think you call a 'vested interest.'

"Believe me, sir, that's bad, and it is not amusing. I don't want to use strong words in these letters, because strong words seem to me to injure any case; but this action of the great people who can shoot in Richmond Park, which I understand is public property, is the sort of thing that upsets, not a Government, but a Constitution.

"If the pheasants in Richmond Park are bound up with the bishops in the House of Lords, with the land system, and with vested interests, then the pheasants sooner or later will get their marching orders, and they won't go alone."

"A man in England who rests himself from one kind of work by doing another sort of work would be difficult to find. But it goes without saying that there isn't a finer, more able, more consistent class of business men in the world, and they have a quiet, dignified courtesy which you don't find at home. This is proved by the patience they show Americans who tell them, with no provocation at all, how to do their business, and how they should emulate the land of the Stars and Stripes.

"As to the working classes some of the same conditions affect them. Three things in particular, however, beside the old truism that the people work with less spirit, help to explain to me why, with labor as cheap as it is in England, the actual cost of the product is so high. First, the workingman drinks too much and loses both time and, in the long-run, quickness and keenness; second, he begins early and stops for a breakfast and dinner which he cooks himself—his hours in very many shops are from 6 A. M. to 5:30 P. M.—and loses still more time by stopping and starting and, third, in comparison with his American competitor, he is ambitionless.

"It is hard, also, to make an over-statement concerning the terrible difficulties the unions have put in the way of progress. Many manufacturers over there are really feeling encouraged at the growth of union power in America. 'Soon,' they say, 'you'll

be tied hand and foot as we are, and things will be even.' A large employer with two gigantic establishments, one on each side of the ocean, said only a short time ago that the American unions are fast growing to the same strength, deadening ambition and hurting progress, that has held back English manufacturers.

"The Morgan Steamship Trust came nearer waking up the average Englishman than any preceding incident. The dramatic appeal of it startled him. Britannia had always ruled the seas, and behold, a group of Americans comes abroad, buys many of England's important ships and takes control of her largest ship-yard. The Englishman was stunned silent and then he began to scold. He wasn't stirred so much to find a way to meet the attack but, as one of the papers phrased it, 'he looked upon the transaction with resentment.' He wrote letters to the newspapers declaring that it was all the fault of the Admiralty. He said half threateningly that it was not likely to draw the bonds of the nations closer. He raved at Harland and Wolff, at the White Star Line, at Mr. Morgan, at trusts, at Americans. He heard rumors that Mr. Morgan was going to buy all the railroads of England—that Americans had obtained control of Canadian traffic by sea and land, and said, very emphatically, sarcastic, pessimistic things of the same tenor from morning till night.

"As a matter of fact, England had been losing something of her high place on the seas for a number of years. At the beginning of the South African War, Germany took control of the large business done previously by English ships, then turned into transports. The entire self-satisfied shipping business of Great Britain has not advanced rapidly during the last few years. Here is a table which will illustrate the way in which the two great German lines have been reaching swiftly and successfully after England's shipping trade:

	Passengers
The N. G. Lloyd landed in New York during 1901	124,344
Hamburg-American	99,537
	223,881
The English Lines:	
White Star	48 650
Cunard	37,726
Anchor Line	30,535
State Line	3,500
	120,411
The French Line	43,240
The American Lines (owned in America):	
American Line	24,621
Red Star	39,034
Atlantic Transport	4,194
	67,849

"Why should not the English lines compete for the Mediterranean travel, also for trade from Germany and France, getting into competition with the Germans?

"The difficulty was not with Mr. Morgan for deciding he could handle the lines better than they were being handled or with the Admiralty or with anyone or anything except British self-confidence and lack of initiative.

"A well-known English nobleman said not long ago that Cecil Rhodes should have given his scholarships to bright English boys, who should go to America and Germany and study the new industrial conditions here and there. Another Englishman said to me that Rhodes's purpose was to shake up Oxford, and the university in that way would be benefited by new ideas. The former, it seems to me, is more than half right. The poor people in England go abroad to make their fortunes, while the well-to-do are limited largely to their insular seclusion. They do not know the competition that is being built up against them, and they don't care—that's the truth. But the condition can't be more than temporary. The English people are so sensible, healthy, vigorous and industrious that they are certain to come to their senses in the course of time."

"Don't you think," I asked, "that you can trace the present conservatism back to old-time feeling in England that trade is common and vulgar and leisure alone gentlemanly."

"You might trace it back to that or to Charles I, or to Adam. It won't help you or them in the least. The condition exists, that's all."

"Don't they live a less hectic, rushing existence? Don't they have compensations that we have not?"

"Perhaps so, but as long as they make their compensations of first importance, Germany and the United States will get the business. If a man beats you at a game when, with your style of play, you are performing as well as you ever did, you must drop your old way of playing and develop a game that will meet and beat him. Until you do that you'll lose consistently."

AMERICAN BOOKS NOW READ ABROAD

"In the four quarters of the globe who reads an American book? or goes to an American play? or looks at an American statue? What does the world yet owe to American physicians and surgeons? What new substances have their chemists discovered? or what old ones have they analyzed? What new constellations have been discovered by the telescopes of Americans? What have they done in mathematics? Who drinks out of American glasses? or eats from American plates? or wears American coats or gowns? or sleeps in American blankets?"

—SYDNEY SMITH.

PRACTICALLY all successful American books are now republished in England—the rights sold to English publishers—and some are translated for Continental countries. The tourist finds Tauchnitz editions of the latest American "success" strewn about Europe—a French fellow-traveler, as in one case, wrinkling puzzled brows and nervously sputtering "La! la! la!" over the local dialect of "David Harum."

In a little Lincolnshire town is a club that meets weekly to read and talk about literature, chiefly the classics. When the time came, they read Lowell, Emerson, Hawthorne, Irving and Poe, just these five Americans. But they read them not as American writers at all: the books were regarded, in their proper perspective, as English classics. And this has been the typical English attitude. In the same town less cultivated folk were reading Will Carleton and James Whitcomb Riley, catching the minimum of local color and provincial spirit, the maximum of homely familiar sentiment; to all intents and purposes they were reading English verse. This again is typical. All these writers are read throughout Great Britain as freely as here—though by proportionately fewer readers—and Longfellow without doubt is one of the two most popular (many even say the most popular) of English poets, but there is so faint a hall-mark of Americanism on what is read that it is all regarded as English letters. There are people in England who believe Lowell to have been English. Our established American writers have been adopted.

A well-informed Englishman, not a literary man, was asked:

"Have you read our American writers?"

"Didn't fancy you had any, you know," said he.

"Mark Twain?"

"Of course."

And then his eyes opened wider as he confessed a knowledge of this list: Bancroft, Prescott, Parkman, Motley, Fiske, John Burroughs, Captain Mahan, Frank Stockton, and Mr. Howells. Bret Harte, Mr. F. Marion Crawford, Mr. Henry James, and Mrs. Atherton, he averred, were quasi-English through their residence in London. He confessed to having read "Helen's Babies," and "Two Years Before the Mast" with his "Crusoe," and Cooper with his Scott. He also reads Mr. Richard Harding Davis, and with commendable enthusiasm he said, "And who is this new man, Wister. That story of his"—he had read "The Virginian,"—"is the real gold of fine, clean, vigorous life in a book." His whole confession is an average sample of the English view—not the bookish or the university view, but the every-day benefit-of-clergy view — of American letters, though naturally among many men the lists would vary. These writers have a steady sale in English as in American book-stores.

Coming to contemporary novel reading, a sharp difference presents itself between the American and the foreign intellectual life, the diffused intellectual life. Here a million people eagerly await the next new novel and, when it appears, their onslaught is as of a school of mackerel on a school of minnows. Not so abroad. The mass of the English people, for example, do not have the reading habit: even American advertising methods could hardly wake them to it. A certain class of Americans read submerged stuff from E. P. Roe downward; the corresponding English class do not even read *Tit-bits* or *Answers*: readers matching those who there would read submerged stuff here read the latest novel and struggle with better things. American society just above the grammar school plane of intelligence is self-educating along the easy path of novel-reading; acquaintance with the "best-selling" book is taken for culture and sought for. In Great Britain, no. Thus

two-thirds of any edition of an English novel is sold in the United States, though our total population is no more than twice as great as the population of the United Kingdom.

But it is surprising to see how many recent American books of every sort *are* read abroad. Captain Mahan was actually "discovered" in England, and every English naval officer now owns his books. With German, French, and Japanese editions—every Japanese officer is supplied with "The Influence of Sea Power"—the volumes have affected the naval policy of the world. Mr. George Kennan's "Siberia and the Exiles," boasting German, French, and Danish translations, was read by the Czar, though it was blacklisted in Russia, and it profoundly influenced European opinion. Mr. Booker T. Washington's human story, "Up from Slavery," eagerly read in England, has been translated into more languages, in all probability, than any other American book. And at present "Ben Hur" is sweeping Europe about as it swept the United States, for obvious reasons, but why so late it is hard to say.

Some of Dr. Van Dyke's work, a novel of Robert W. Chambers, and some tales of Mrs. Deland, who is popular in England, have been done into French, as has Mr. Roosevelt's "Cromwell," and Miss Wilkins and Mr. Howells are read in both French and German. There is a German edition of Edward Bellamy's "Equality." Mr. T. B. Aldrich's "Story of a Bad Boy" is a standard reading book in French schools—officially authorized.

Studying England, where all our books are accessible, it is chiefly interesting after a lustrum in the United States of a very fever of novel-reading, to see what recent American novels have been read. True, certain novels are well known here that are not known there because the "booming" of them did not reach so far, but what American publishers agree in admitting is that a good story well written is sure of an English sale, if the society presented is not too provincially American to be comprehended. For example, "J. Devlin: Boss," a really capable tale of American politics, was refused the imprint of a London publisher because English readers, he said, could not understand American politics. There was no such difficulty with "David Harum" and "Eben Holden," which were widely read in England—"Eben Holden" to some extent in pirated editions. Here, in a way, was an American invasion, for the publishers of "Eben Holden" have been seeking a foreign market for only a year and a half, and yet added to "Eben Holden" five other books last season reprinted for English readers.

Mr. Hamlin Garland's stories and other Western tales, such as Mr. Hough's "Story of a Cowboy," have appealed to English readers as satisfying their preconception of American life, which not even their familiarity with Mr. Howells can correct. Mr. Frank Norris helped to strengthen it by "The Octopus," profoundly affecting critics with that splendid Western canvas. Miss Johnston's romances, feeding another desire, and likewise Mr. Churchill's stories sold readily in England, but with no such rush as they piled up editions at home. Mr. F. Hopkinson Smith's stories, Mr. Cable's "The Cavaliers," Mr. Chambers's "Cardigan," were well accepted—these books cited standing for a longer list of the sort of American novel that permeates to the English story-reading class. It is useless to mention the serious books that might be typified by the late Mr. Scudder's recent "Life of James Russell Lowell," or such essays as Lafcadio Hearn's as being read in England—they fall into the class of books that come to every cultivated man's table in English-speaking countries round the world: only the novels are salient on the point under consideration, and they show merely that English readers read much what Americans read—only less of it in proportion.

There are one or two odd details, however, that sometimes prevent an English success for an American book. In history and biography, for example, popular English prejudices object to the American view of such events as our Revolution and such characters as Napoleon. As a rule a book will not be widely read that runs counter to these prejudices. American text-books use a form of computation that the English do not understand: that excludes such books. American spelling condemns a book: the "u" in "honour" is as sacredly esteemed as the rights in Magna Charta, and one Englishman is noted who threw down in disgust one of the best novels recently written in America because he found "favor" so spelled. And "program" they will not endure.

ıdam road offered obstructions to the ls of the automobiles running at sixty seventy miles an hour. The only solution ıe problem of speeding automobiles was nstruct roads as perfect in surface build ıe tracks of the railroads. The perfect mobile speedway will be built of steel, and ll have the most perfect surface bed in the d. Nearly all owners of racing auto- iles are interested in the construction of speedway on Long Island.

ıt the question of building steel roads has enly advanced far beyond the mere mat- f providing sport for the owners of auto- iles.

eel streets are the new development. The roads are built with a view to economy,as as for making a good track for vehicles. streets are not paved with steel from to curb, but are merely provided with inuous steel tracks which truck wheels follow. These steel tracks will be about ot wide, and set at standard gauge, and ks and heavy wagons will follow them nd down the streets and avenues as they ow the car tracks. The great advantage be in avoiding sudden interruption of ic, and the constant changing and shifting to the passage of surface cars. These r are constantly forcing the heavy trucks and forth from the tracks, and the loss in is enormous in the course of a day. With steel tracks provided for their special use heavy trucks and wagons could form in and keep their positions on the smooth ıce. The lighter wagons driving more lly would take the sides of the streets out- of the line of steel rails.

spite of the constant agitation for im- ed roads in the country districts, the ter part of the land has no, or very few, ways that can be used in winter and early ıg by heavy trucks or farmers' wagons. fic is practically tied up for months in each , and the farmers lose millions of dollars use they are unable to get their produce

to the railroad stations when prices are the highest. To make the roads passable at all seasons of the year nothing short of first-class macadam roads seems to answer the purpose, and the cost of these has always been too high to recommend them to any except the populous townships and counties. The country roads, like the city streets, will be provided with single tracks of steel plates about twelve inches wide, and during bad weather these tracks will present a smooth surface.

The question of cost is naturally the one uppermost in the minds of engineers and practical road-makers. A steel highway at first thought suggests an expensive construction; but tracks of steel plates or rails put quite a different color to the question. The flat rails have flaring sides and they are turned down into narrow beds of gravel, broken stone, or vitrified clay, and then carefully drained at every low point. No cross ties or other clumsy and expensive supporting pieces are needed, for the plates properly laid and spliced together furnish sufficient foundation to hold them in position. Each track will be a continuous plate of flat steel which cannot be moved from its place in the bed of gravel without more force than could be exerted by vehicles.

The amount of steel required to form such tracks of a foot wide would average, according to experts, about seventy-five tons to the mile. This includes bolts and splices and all other articles required. With steel at $20 per ton the cost of the material for making a mile of good roadway would average $1,500. The cost of building the road would vary according to the locality, but it would be about one-half that required for constructing macadam roads. At this rate a steel road would cost no more on the average than stone roads, while it is stated that the repairs would be far less, and the durability nearly twice as long.

The experiments should prove that the question of uniting different sections of the country by passable highways can be solved within a few years, and that an era of building steel country roads for vehicles must follow.

THE GREATEST POWER PLANT IN THE WORLD

THE water-power electric plants at Niagara Falls that ran the Pan-American Exposition have been widely supposed to be unequalled in size, but for amount of power generated they are surpassed by a vast steam-power electric plant in New York City now the largest in the world. The Manhattan Elevated Railroad power-house at Seventy-fourth Street on the East River, begun in August, 1899, and now practically completed has a total capacity of 100,000 horse-power, an amount equal to Power-houses No. 1 and No. 2 at Niagara combined. Here under a single roof is produced all the power that will transport daily over 500,000 passengers on the one hundred and ten miles of elevated railroad in Manhattan. This plant is remarkable for some novel achievements in both steam and electrical engineering, made marvelously simple.

The building is divided nearly in the centre into two great sections—the coal and boiler rooms on one side and the engine and dynamo room on the other. The coal is conveyed from the river to the top of the building by an electric shovel that scoops from the barge mouthfuls of a ton and a half at the rate of two mouthfuls a minute. Here it is weighed and crushed, and then distributed by an endless chain of buckets to the coal-bins over the boilers, to be fed by mechanical stokers into the fire-boxes. The ashes drop out into cars in the basement and are carried back to the river by an electric engine. When running at full capacity, more than 600 tons of coal a day will be consumed—all handled by machinery.

The engine section is one huge room from the ground floor to the roof and without partitions, down which stretches a row of steam dynamos, the tall, cylinder iron towers looking like the conning-towers of a battleship. High in the roof an electric crane, fastened to each side, runs swiftly and smoothly back and forth over four hundred feet from end to end of the room. On the ground floor are eight double compound condensing engines, each driving with its 12,500 horse-power a huge solid wheel—the alternator or generator of the dynamo, which by a novel economy also serves as a flywheel for the engine. These flywheel generators are thirty-eight feet in diameter and weigh each 332,000 pounds. The so-called "unit" system is used, especially designed to meet the requirements of a large railway like the Manhattan Elevated, whose motive power must be absolutely reliable and also very elastic, as the demand varies daily from 5,000 horse-power in the early morning to 60,000 at rush hours in the late afternoon. The electric current of 11,000 volts is generated by eight "units," each unit consisting of one dynamo, one double engine with eight boilers, and one condenser, each complete in itself and running independently. At the dullest hours one "unit" alone is operated; the rest are shut down with fires banked. This system too, gives the required

es already, one can stand in this single nd watch the pulsing of the power that them all, from four miles south at the y to eight miles north in the Bronx.

AILING SHIP "MANNED" BY STEAM

E seven-masted steel schooner, the *Thomas W. Lawson*, launched in July at re River Yards is large enough to carry away all the 6,000 tons of material building the greatest power-house in rld and 2,000 tons of coal beside. In here was no schooner with more than nasts; previous to this novel leviathan, gest sailing ship in the world, only two many as five and none built of steel— s the *Lawson* is of steel from keelson ss-trees. Her serried steel sticks as d without sound from the ways re- d the file of telegraph poles one sees flying train, her high freeboard, 403 ng, a moving drab wall. But most rful is her highly modern equipment; nder crew of sixteen men will do their hiefly by machinery. One steam en- rward will handle her 500-ton anchors re others her cargo, the 43,000 square her twenty-five fore-and-aft sails, and er steering gear and pumps. She will am-heated and siren-whistled, fitted ectric lights, and signals, and supplied telephone. She will carry coal in the rade, or possibly run to the Philippines, ly a curiosity in sailing ships but a ous example of labor-saving efficiency.

TRUCTING TRANSCONTINENTAL RAIL-WAYS

make straight and plain the railway thoroughfares across the continent is a ork being carried on with energy in this of long hauls and low rates. In build- Great Northern, J. J. Hill, looking l to an immense haulage of wheat he central valleys of the States to gton ports, insisted on low grades and num curvature, and is able to trans- ight for a smaller charge per ton than f his transcontinental competitors. managers noting the steady lowering ght rates began to make changes. in the line were taken out, grades duced and new bridges replaced the structures first erected. Some roads een practically reconstructed within t five or six years to meet the new ns. Then came larger cars with a of 100,000 pounds which were hauled ter roadbeds carrying heavier rails.

On the Union Pacific a tremendous process of reconstruction has been proceeding under the direction of President E. H. Harriman, with the result that its grades have been reduced from a maximum of ninety feet to a maximum of forty-three and three-tenths feet.

The Union Pacific and the Central Pacific, both land-grant roads, were rather strung out in construction than made the shortest possible distance between two points. In the process of rebuilding on the Rocky Mountain division of the Union Pacific, 158 miles of new railroad were put in and 188 miles absolutely abandoned at a cost of $6,500,000. An additional two millions was expended on the line between Cheyenne and Omaha. The result has been the reduction of grade mentioned, and the elimination of curvature from ten degrees maximum to four degrees, throughout the whole distance of 1030 miles.

On the Central Pacific between Ogden and Reno, a distance of about 580 miles, similar conditions prevail. The grades run as high as ninety-seven feet to the mile, and there are many curves amounting to over ten degrees. The new line will cost about $8,600,000, and will save only three miles of distance, but it reduces the grade to a maximum of twenty-one feet and eliminates curvature to a maximum of four degrees. This latter saving amounts to forty complete circuits; that is the train that formerly went round sixty times in making the 580 miles will now go scarcely twenty.

NEW RAILROAD RECORDS IN FRANCE

THE New Northern Railroad Company of France introduced on June 2nd an entirely new service of trains, both between England and the Continent and in the District served exclusively by itself in the northeast of France.

The English services via Boulogne and via Calais have, for example, been materially accelerated. The 186½ miles to Calais are now run, excluding a stop of four minutes, in 196 minutes, 202 minutes and 181 minutes. The 158 miles to Boulogne are run in 170 minutes, including a stop of four minutes for water, while the first 110 miles from Paris, including two necessary delays, are listed to be done in 114 minutes. Good as this work is, the non-competitive service from Paris to Lille is even better. The 154 miles are being run with two stops in 165 minutes, while the first 120 miles are booked to be run in 117 minutes.

The Belgian and German services have both been materially accelerated; the famous Nord Express being now allowed 99 minutes for the first 96¼ miles. The return train from a station, Aulnoye, 135 miles from Paris, with four stops, is booked in 150 minutes, while the successive start to stop speeds are 55, 56.6, 52.5, 58 and 56.5 miles an hour.

The fastest run in the world for the distance is made in three cases on this line, *i. e.*, Paris to Amiens, 81.75 miles, in 77 minutes, or 63.5 miles an hour; 120 miles from Paris to Arras in 117 minutes or 61.5, and 186½ miles from Paris to Calais in 181 minutes.

The engines employed are of the Atlantic type, four-cylinder compounds of the De Glehn system, designed by M. Du Bousquet.

Many of the actual runs made are interesting. In March of this year the distance from Paris to Amiens was covered in 74 minutes net, with a load of 176 tons behind the tender. The total distance from Paris to Calais was run at a net speed of 65.7 miles per hour. Returning to the Nord Express—perhaps the most famous run ever made by this train was made in the autumn of 1900 during the Exposition, when the coach-load was 365 tons and the 96½ miles to the first stop, St. Quentin, were covered in 97 minutes, including two minutes loss by road delays. The best run perhaps of late between these points was with a load of 282 long tons, when the top of the hill out of Paris was passed at 60 miles an hour and on the level a considerable distance was covered at a rate of between 74 and 78.75 miles per hour. Owing to the heavy Easter traffic on March 29th there was a single coach-load of 318½ tons. With this load, despite very hard rain and a diminution of the steam pressure, the speed of the 13 miles of 1 in 200 was 55 miles per hour, while on the level it rose to 72½. From this it will be seen that the loads which have to be hauled in these trains are not light, as they average from 200 to 300 long tons.

PREVENTATIVE TREATMENT FOR FIRES

A NOVEL and important department — that of insurance engineering — has been established at the Massachusetts Institute of Technology, to reduce to an exact science the prevention of fires. This may be accomplished, first, by planning the construction of buildings in such a manner as to reduce danger of fire to a minimum; second, by devising means for the rapid extinction of any blaze that gains headway. Considering that the fire waste in the United States has been increasing for the last five years in the face of improvements in the fire departments and equipment, and that the

loss last year was $150,000,000, it is certainly time an intelligent effort was made to eliminate avoidable danger.

At present there exists in the United States no school where the principles of loss by fire can be studied. In England a fire prevention society has recently been organized among architects and engineers, and a systematic investigation into the causes of fires and of types of buildings is in progress. The Department of Insurance Engineering at Boston, under the charge of Professor Charles L. Norton, will be established in a set of structures of its own on an acre of land in the vicinity of Boston. Difficulty has been experienced in getting a site commanding a sufficient water supply, and yet so distant from population centres as to allow the essential experiments to be made without danger to adjoining property. The buildings will be of uniform size on a ground plan of 16x22 feet with one post in the middle so that the relation of the middle beam and wall will correspond to two bays in a factory, each 22x8 feet in dimensions. In the rear of each will be a one-story annex in which constant tests will be made to determine ability to resist fire or any other agent of accidental destruction. These annexes will also serve to measure the power of the walls of the main structure to resist the heat from a conflagration in an adjoining building. It is proposed that each structure will exemplify a type of the several systems of fire-proof construction.

The more important building will be a large laboratory fitted to enable tests of fire-proof flooring under high temperature and heavy loads similar to those that the same floor might have to sustain in a big fire in a great business block. Here, too, fire doors, glazed windows and other protective devices will be submitted to conditions of intense heat such as would occur in a conflagration and the results studied. The efficiency of steel-framed posts and other metal features of up-to-date fireproofing and the value of the various protective devices against deterioration will also be determined.

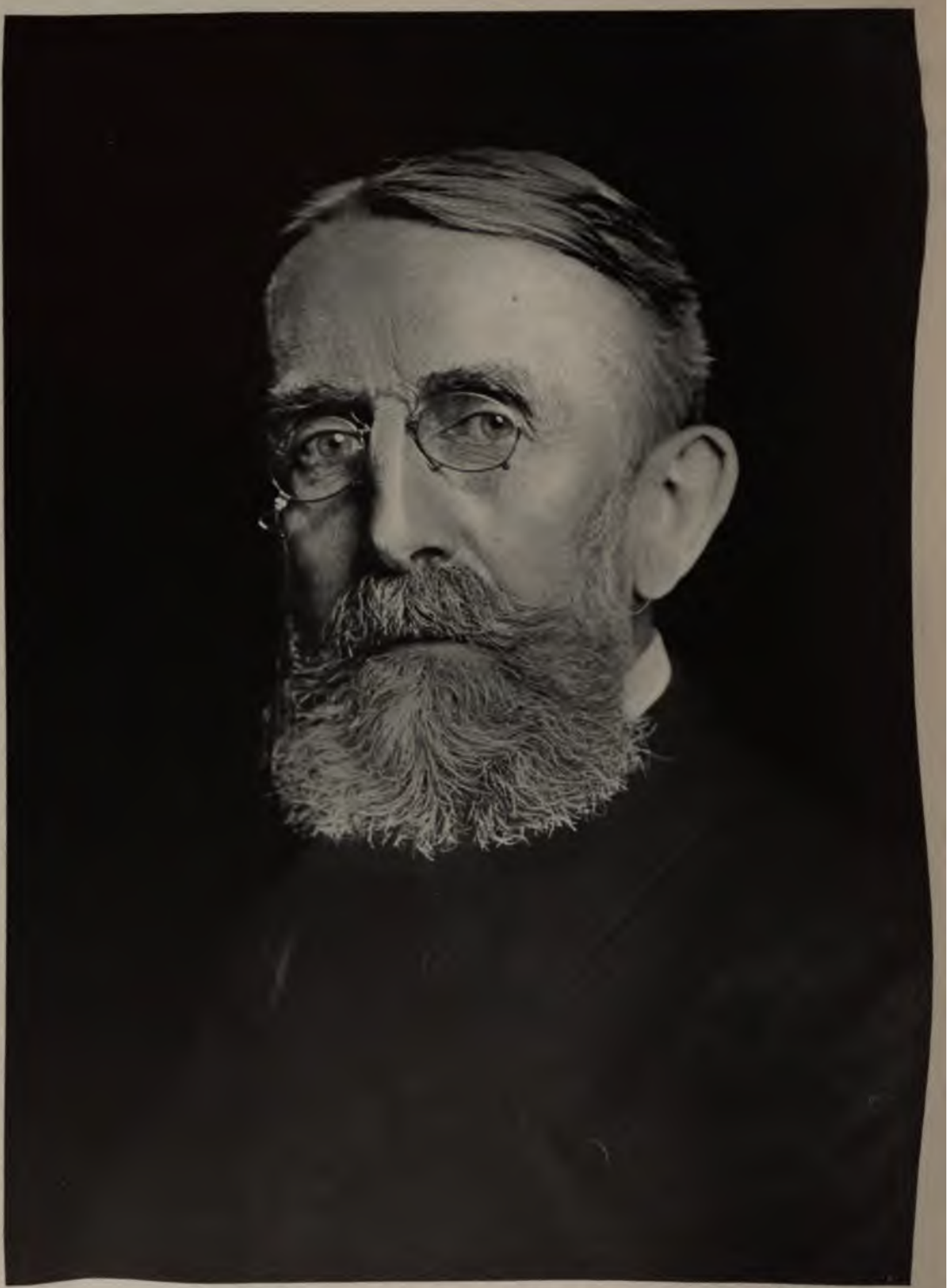
The undertaking has the enthusiastic support of the big insurance companies, and has appealed so strongly to mill owners, builders and manufacturers that no difficulty was experienced in gathering the fund for the erection of the several expensive structures. The new School of Insurance Engineering will certainly fill a long-felt want and will supply to the building departments in the great municipalities of America young men whose expert knowledge should accomplish important structural reforms and a great saving of human life and property,

RECLAIMING THE AFRICAN DESERT

NEW developments are being made in the Sahara as well as in American deserts, but a comparison shows striking contrasts. In the region south of Tunis, between the salt lakes of Djerid and the lake of Kharsa,—a district with a population of some 30,000,—the French Government has recently planted 635,000 date trees. Within this planted region, which is surrounded by a palisade made of the ends of young branches of the date trees, the culture of the date-palm and of the olive tree is carried on upon an extensive scale. Some sixteen thousand tons of dates are produced, five thousand of which are consumed within the country. The leaves of the palm are used in hat and basket-making. From the sap a popular native drink is evolved. More than 8,000 tons of olive oil in 1898 were exported. The oil manufactories rival the best establishments of Provence, Italy and Spain. In addition to the date and olive culture, fruits are raised in abundance for the Algerian market,—bananas, oranges, pomegranates, grapes, lemons, apricots and peaches. There is also an important trade in silk tissues and mixtures. The Phosphate Company of Gafsa has constructed 150 miles of railway, with five large bridges, and has taken more than 200,000 tons of phosphates from the soil. Thus it may be seen the Desert of Sahara is no longer a region wholly deserted. But the scientific remaking of the desert as Americans are remaking their alkali and sagebrush country is yet to be begun in Africa.

A GOLDFISH INDUSTRY

IN Shelby County, Indiana, there is situated a goldfish farm whose proprietors assert that they are the originators in this country of the somewhat peculiar industry of breeding goldfish. The establishment is known as the Spring Lake Fishery, and consists of two tracts of land, of ten and sixteen acres. Last year there were 200,000 goldfish on the "farm." The ponds where the fish breed are protected by high embankments from the danger of cold winds. This is the sole protection required, as goldfish are hardy if not handled. The fish require little care; they are of the sort of creatures that thrive best when intelligently left alone. The fish are hatched on one of the tracts; as they grow they are taken to the other, and are thence shipped to every part of the United States.



Photographed by Hollinger

DR. ANDREW D. WHITE

THE UNITED STATES AMBASSADOR TO GERMANY WHOSE RESIGNATION SOON TAKES EFFECT ON HIS SEVENTIETH BIRTHDAY

(See page 2675)

THE WORLD'S WORK

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VOLUME IV NUMBER 6

The March of Events

IF the President's party follow him, it will radically change its attitude towards the great corporations. But the change would be the most wholesome thing that could happen to the corporations, and certainly the most wholesome thing for the party; for the people are with the President.

Mr. Roosevelt is as earnest about the necessity of a better control of corporations as he was when Governor of New York: not of "trusts" only, but of all corporations, all artificial creations of the State. He will enforce the laws that exist. "As far as the anti-trust laws go," he said in his speech in Boston, "they will be enforced; and no suit will be undertaken for the sake of seeming to under take it."

Then publicity. "I don't mean publicity," he said, "as a favor by some corporations: I mean it as a right from all corporations." Now, the National Government can, if Congress be so minded, try to compel publicity about the interstate business of corporations. So far the way is clear. It is a practical plan of agitation—a definite and positive policy—to insist that Congress shall require such publicity. If the pressure of public opinion be strong enough, an interstate corporation law, similar in purpose to the interstate commerce law, but more effective, may be enacted at any session; and opinion grows and seems likely to grow in favor of such a law. Yet there is a good deal of doubt felt by conservative men about the possibility of any law's securing real publicity. But it is well to remember that there are conservative men whose business it is to doubt everything.

The President's thought does not stop with publicity. The States create corporations. But few States restrain them. He would like to see some power to which these artificial creations must be responsible. But responsible supervision of corporations cannot be hoped for from the States in the present condition of public opinion and of State legislatures; for such supervision would require something like uniform State legislation. Since we cannot hope for this, Mr. Roosevelt sees no possible supervisor but the National Government. But the National Government can have such power conferred on it only by an amendment to the Constitution; and an amendment to the Constitution for any purpose, least of all for this purpose, is for the present a very remote possibility. The time may come when such an amendment may be made, but it is hardly yet in sight. The difficulty in passing it would be the greater because the corporations would fight under the banner of States' rights with much the same arguments that the slave-owners once used.

Undismayed by the possibly revolutionary nature of this last remedy, the President

keeps speaking to his main point: *that corporations, which are artificial creations, are not responsible to their creators.* He has raised a bigger question than he or anybody else can now answer. But he is right in saying that an answer will be found, not by academic discussion, but by public experiment. Let us do this (if it seem wise), then let us do that; and so on through action and conservative experiment. This is the only law of practical progress. If we wait for a perfect solution to be formulated, we shall work only on paper and never get an inch forward.

WHAT MR. ROOSEVELT SAID ABOUT TRUSTS

IN considering the clamor that the President's deliverances on trusts have provoked, it is worth while to read carefully what he has said. In his speech at Fitchburg, Massachusetts, on September 2d, he said:

"If some of those who have seen cause for wonder in what I have said this fall on the subject of the great corporations, which are popularly, although with technical inaccuracy, known as trusts, would take the trouble to read my message when I was Governor, what I said on the stump two years ago, and what I put into my first message to Congress, I think they would have been less astonished. I said nothing on the stump that I did not think I could make good, and I shall not hesitate now to take the position which I then advocated. The man who advocates destroying the trusts by measures which would paralyze the industries of the country, is at best a quack, and at worst an enemy to the republic.

"Now it does not do anybody any good, and it will do most of us a great deal of harm, to take steps which will check any proper growth in a corporation. We wish not to penalize, but to reward, a great captain of industry or the men banded together in a corporation, who have the business forethought and energy necessary to build up a great industrial enterprise. Keep that in mind. A big corporation may be doing excellent work for the whole country, and you want, above all things, when striving to get a plan which will prevent wrong-doing by a corporation which desires to do wrong, not at the same time to have a scheme which will interfere with a corporation doing well if that corporation is handling itself honestly and squarely.

"I believe that something can be done by national legislation. When I state that, I ask you to note my words. I say believe. It is not in my power to say I know. When I talk to you of my own executive duties, I can tell you definitely what will and what will not be done. When I speak of the actions of any one else, I can only say that I believe something more can be done by national legislation. I believe it will be done. I think we can get laws which will measureably increase the power of the Federal Government over corporations; but, gentlemen, I believe firmly that in the end there will have to be an amendment to the Constitution of the nation conferring additional power upon the Federal Government to deal with corporations. To get that will be a matter of difficulty and a matter of time.

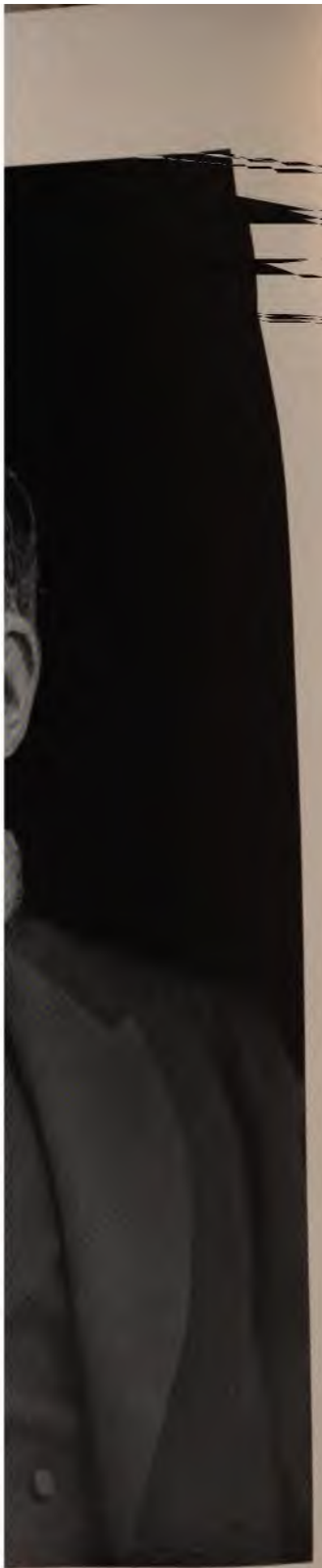
"I want you to think of what I have said because it represents all of the sincerity and earnestness that I have, and I say to you here from this platform nothing that I have not already stated and nothing that I would not say at a private table with any of the biggest corporation managers of the land."

There are two important differences between Mr. Roosevelt's position and the usual "trust plank" in a party platform. The first difference is that he believes in the ultimate necessity (and the desirability, and inferentially the possibility) of an amendment to the Federal Constitution giving the National Government direct power over corporations. But this is remote, even if possible and desirable.

The other difference is less radical but very much more important in its practical and immediate bearings, namely—Mr. Roosevelt means what he says: the Republican platform's trust planks have been Pickwickian poppycock.

MR. ROOSEVELT AND THE GREAT FINANCIAL INTERESTS

CONCERNING a constitutional amendment to give the National Government direct control over corporations, which the President has mentioned as a last resort, and which Mr. Bryan had proposed before him, it may be said with certainty that neither of them will live to see such an amendment put through Congress, to say nothing of its adoption by the necessary number of the States. The mere mention of it by Mr. Roosevelt has provoked several prominent newspapers that support his party to point out the revolutionary character of



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(See page 2026)

such a proposal, and to preach him solemn sermons about it. They represent it as full of danger to the ordered prosperity of the country; and they predict a panic and something like general ruin if there should be any probability of the execution of such a plan.

The present point of all this is not any probability of such an amendment nor any danger to the country's prosperity — not the slightest; but the point is, that the President is making plain his wide divergence from the conservative wing of his party, and especially from the great financial interests that have supported it. He is appealing to the people.

The political question that overshadows every other is: Will Mr. Roosevelt win his party from too close fellowship with these great financial interests? For a long period the Republican party has been the party of the rich man, and the Democratic party the party of the poor man. It is true that this difference has not always been quite so frankly expressed in platforms. It is true, too, that the Republican party has done historic service to the poor man and the Democratic party has more than once run after the rich. Still this very general distinction holds. The Republican party has had at its command the larger financial interests. It has served them: it has depended on them. It was unfortunate both for the party and for the great financial interests that at the last two Presidential elections the Democratic attack on sound currency strengthened more than ever their hold on the Republican party.

Now, will Mr. Roosevelt drive away this powerful support from his party by such frank discussion? and will he draw to himself the masses of people who followed Mr. Bryan? Or, will he simply alienate financial support from himself and give the Republican party over to the great financial interests more completely than ever?

There is, perhaps, no use in predicting either of these extreme results, for no such violent split is imminent or likely. But to state the ultimate possibility of his independence is a convenient way to make the fact plain that he is not playing and does not mean to play into the hands of the great financial interests. Their easy control of his party is seriously threatened by him.

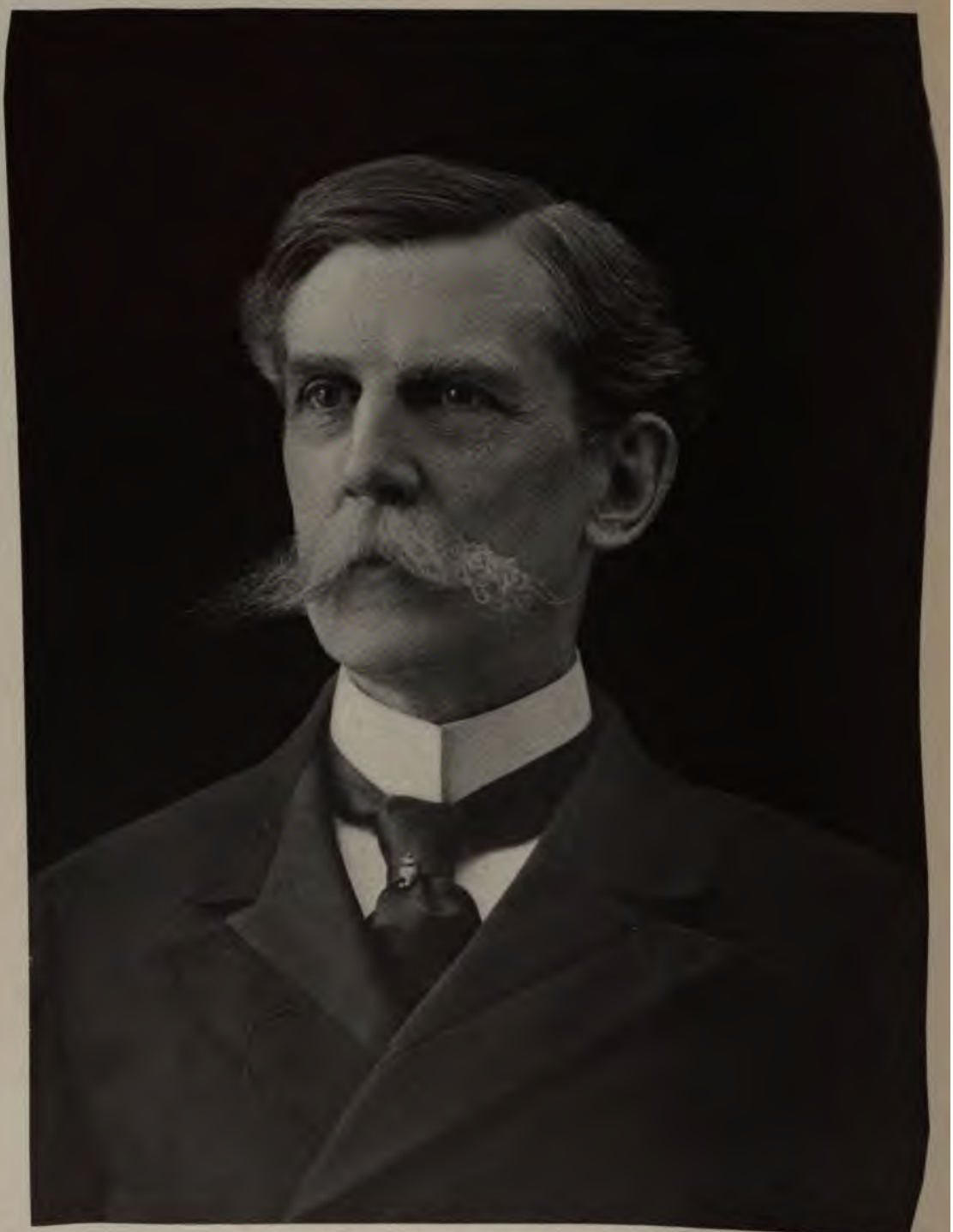
It must be remembered that any statement of this divergence of temperaments and tendencies is an overstatement. Mr. Roosevelt has no wish nor intention even to offend Capital (to use the loose political phrase of former campaigns), nor to unsettle industry; nor will he do so. Nothing is further from his purpose or wish. But the fear of criticism, or even of the personal opposition of great financial leaders, does not for a moment deter him from straightforward speech and action; and he cannot train with the leaders that are shod with silence when Wall Street is mentioned. In the meantime the "old-line" leaders are permitting it to be said that Mr. Roosevelt, while he shows independence of them, is building up a political machine of his own.

All this conglomeration of facts and rumor, of whispered accusation and of unconscious as well as conscious divergence, was inevitable. It is the necessary clash of the old Republican strongly fortified policy of silence about the kingdom of the rich and the frank and fearless manner of Theodore Roosevelt. He discusses everything (but the tariff). The old party managers had contracted a habit of noncommittal quiet in the presence of most really important subjects. The truth is, he cannot if he would and he would not if he could in any way unsettle the solid foundations of prosperity. But, thanks to his frankness, there are no longer any great political subjects too sacred or too delicate for open discussion in his party. This is so far the sum total of the flurry; and it is a distinct gain for candor.

The most interesting fact to the independent student of party politics is that all the discussion that has any serious meaning is within the Republican party and not between the two parties; for *that* is on both sides chiefly general, and much of it insincere, oratorical or editorial pyrotechnics.

THE PUBLIC SPEECHES OF TWO PRESIDENTS

IN his recent speeches to the people Mr. Roosevelt not only set himself the task of directing their thought to the proper restraint of corporations, but he preached many short sermons on patriotism and civic duty; and they were interesting and inspiring. In their substance there is nothing new, but his earnest personality gives them freshness.



Photographed by Notman

CHIEF JUSTICE OLIVER WENDELL HOLMES

OF THE SUPREME COURT OF MASSACHUSETTS, LATELY APPOINTED BY THE PRESIDENT AS JUSTICE OF THE UNITED STATES SUPREME COURT

And they have the reinforcement of his own example. They are spoken right out, too. He uses no rhetorical tricks: he stands up and talks with energy and conviction. He says, "Men and Women," in addressing the crowd, not the more formal "Ladies and Gentlemen." Every man has duties to perform as a citizen of a great Government; no amount of talk and of good resolutions will make the public service strong and pure; we must respect the laws and enforce them; we ought to be proud of our good public servants —"that good man and great lawyer," he called Attorney-General Knox; we owe our loyal thanks to our army; we have reason to be proud of our navy; our history is an inspiration—and he knows the local history of every place he goes to; in a word, a popular Government can be no better than the character of the people; and the character of the people rests on the simple life untainted by luxury. All very well spoken, very wholesome, very effective in making active citizenship the fashion. As a preacher of patriotism and of homely political wisdom, Mr. Roosevelt is exerting a strong and uplifting influence.

His addresses to the people are very different from Mr. McKinley's during the last year of his life—no two things could be more different. Mr. McKinley set out with a deliberately planned exposition of a single great idea. We have passed the period of isolation; we are a part of the great world of politics and of trade; we must broaden our ideas, and our old trade-philosophy and tariff-philosophy must be changed to fit the new conditions. Up to the day when he was shot, he expounded this one dominant idea. He was leading the thought of his country and of his party to a wider and higher policy. These popular addresses made a profound impression. No President within recent times had delivered directly to the people so important a message.

There used to be a saying that when a President went a-speaking, he lost favor. The public that hears him cheers him, but the much larger public that reads gets tired of him and begins to think of him as a candidate seeking votes. Mr. McKinley could not be President again. Mr. Roosevelt may and doubtless will be; but he is too effective a speaker and too earnest a man to suffer a loss of popularity because he keeps up the habit of a lifetime by going to as many places as he can, by seeing as many people as he can, by preaching as many patriotic sermons as he can. That is the nature of the man. It is a wholesome thing, too, both for the people and for the President. The old adage about the danger of "swinging the circle" has been talked out of date by Mr. McKinley and Mr. Roosevelt. After all, it is true of Presidents as of other men, that the effect produced by their talking depends on what they say.

AN UNRESTING AND UNRUSTING NAVY

THE very important practice of the navy and the army that the Administration characteristically ordered has this general good purpose—to keep both branches of the service, especially the navy, in practice. An unresting navy is an unrusting one. These manœuvres keep men and ships and guns in action. Such activity, too, keeps the public reminded of the service, and it keeps the world reminded of it as well. The activity of the service itself, the knowledge that the public gets of it, and the knowledge that the navies of other countries get of it—all these things are well and worth while.

But this war game has another very definite and serious purpose. The officers and the men are not at play. They are engaged in professional work of the most difficult and important nature, and they are adding materially to naval knowledge and experience. The first experiment was to show whether a hostile fleet could evade a defending fleet and land on the New England coast; and the hostile fleet failed. The second action was to see whether a hostile fleet could make an entrance into Long Island Sound. This was to test the coast defenses. When this paragraph is written the official decision has not been made public; but the report was that the invading fleet, although it captured Block Island and made a landing on the Massachusetts coast, would have been destroyed by the land forces.

This so-called mimic war is not mere play; for important technical problems are solved by it, and whatever defects exist, either in the navy or in the coast defenses, are made plain. It was shown, for instance, in the attack on the New England coast, how the ships would have profited by a complete wireless telegraphy equipment.

During the winter more extensive manœuvres will be made in our Southern waters, where one fleet will protect the West Indies and the Isthmus from another; and Admiral Dewey will be in command.

This is the only practical method of adding to naval knowledge and experience in a time of peace, and the most effective way as well of keeping the officers and crews in practice. If we have a navy (and we have one of which we may be proud, and our new battleships now in construction will excel in several important particulars any others afloat), it is absurd to keep it in rusting idleness. But activity does not mean bloodthirstiness, nor a spirit of war, nor militarism, nor any other nervous or morbid nonsense. It means efficiency.

It may also incidentally mean a certain amount of useful popular knowledge. When, for instance, the war with Spain began, it will be recalled that the thrifty and timid citizens of Boston moved their treasure to the vaults of inland cities, and "bombardment insurance" was written at very profitable rates, so little was known even in Boston about modern naval warfare and coast defense.

INTERESTING STATE POLITICS

THE States that stand out with the greatest political interest this Fall are, each for a different reason, Wisconsin, Ohio and Vermont. The general interest in the politics of Wisconsin centres about the personality of Mr. Spooner. He has made such a distinguished record in the United States Senate, having won the eminence of being regarded as the most useful Senator, that the whole country has felt that it had the right to expect his reëlection; and he probably will be reëlected. But, to use the common phraseology of politics, there are two Republican machines in Wisconsin. One is the old organization, under which Mr. Spooner was elected. The other is the more recent and more popular one, which stands firmly with Governor La Follette, who was renominated by a large majority. The La Follette wing of the party has come into power by its advocacy of an "equal taxation" of property and of a primary election law—two local matters. A statement of the situation as made by the author of the primary election bill appears in this magazine. There is plainly a strong feeling against the old organization—a feeling which it is hoped will not cause even the temporary retirement of Senator Spooner. A primary election law is now likely to be adopted.

In Vermont the September State election was noteworthy because it marks the beginning of the end of a half-century of ineffectual prohibition of the liquor traffic. There were three candidates for Governor—McCullough, the regular Republican candidate; Clement, the high-license candidate, and a Democratic candidate. None received a majority of the votes, and the Legislature will elect McCullough. But the high-license party forced the regular Republicans to commit themselves to a promise to submit the question of high-license or prohibition to the people. The high-license party, therefore, won a deferred victory for its principle, although its candidate for Governor was defeated. The high-license candidate received forty per cent. of the Republican vote and half of the Democratic vote. This means the end, at no distant time, of the long-maintained unenforceable prohibition law. The most careful students of social problems are agreed that the prohibition laws of Maine and Vermont have been injurious to public morality; and the outlook now is that they will not long survive.

In Ohio, although the questions of local politics are of very keen and very general interest, the matter of national political note is the more or less formal launching of Mayor Tom L. Johnson, of Cleveland, for the Democratic nomination for the Presidency. Mr. Johnson is a vigorous personality, a man of strong convictions and of an anomalous position. He is a free-trader and a disciple of Henry George's single-tax theory; he has fought for a three-cent fare on street railways, and for municipal home rule; he is a reformer of a somewhat radical type, and a "regular" Democrat, although he does not believe in the free coinage of silver. The Democratic State convention, at which he was the dominant figure, reaffirmed the Kansas City platform for the sake of party "regularity." He would hold the regular forces of the party together better, perhaps, than any other man.

The sum total of the political activity in these interesting States is that Wisconsin will have its primary election law, after an-

other fierce fight between the two Republican factions, and it is hoped that Senator Spooner will be reëlected; prohibition in Vermont seems doomed—if not forthwith, surely at the next gubernatorial election; and the Democrats have definitely to reckon with Mayor Johnson of Cleveland as a candidate for the Presidential nomination.

THE SOUTHERN REPUBLICAN ELIMINATION OF THE NEGRO

THE elimination of the Negro from politics has been somewhat more than tacitly approved—it has been applauded—by the Republican State convention in North Carolina. There were contesting delegations in the convention from several counties. If both contesting delegations were white men, both were seated—presumably with the vote of their county divided between them. But in every case where one of the contesting delegates was a Negro, the seat was given to a white man. It was a white man's convention. Senator Pritchard, who was the dominant spirit, comes from a (Republican) county in which a Negro is not permitted to live. A few Negroes who have attempted to find homes there have been driven away. In other words, the color line in North Carolina politics is not a party line but a race line. The Republican effort is to throw off "the body of this death," as the chairman of the convention called the Negro.

The hope, of course, is of such a division of the white vote as will follow a division of sentiment on important questions and give the two parties something like equal strength. Such an effective division has not yet come, however, in South Carolina nor in Mississippi, nor in Louisiana where the Negro was eliminated from politics by law a long time before North Carolina adopted a disfranchising amendment. In South Carolina, Senator McLaurin, whose "industrial democracy" was essentially Republican, has been beaten by the Tillman machine, and his movement toward a division of the white vote seems to have come to nothing. One effective argument in favor of the disfranchising amendments in all these States was that, the Negro once eliminated, the white vote would divide itself and a real political life would soon begin again. The white Republican party in North Carolina will for this reason be watched with great interest. It will be interesting, too, to see whether those Negroes who still have the ballot will themselves be divided between the two parties in a State where neither party wants their solid vote and where neither party longer affects political solicitude for them.

In Alabama a somewhat similar movement has been made. The State management of the Republican party has fallen into the hands of men who have an ambition to make it stand for something more than the thirst for Federal offices; and they, too, have set out to make it a "white man's" party.

THE NEGRO IN SOUTH AFRICA AND IN OUR SOUTHERN STATES

MUCH attention has been given in the United States to a recent article by Mr. M. J. Farrelly in the *Fortnightly Review* on "Negrophilism in South Africa," because of the partial parallel between the white man's attitude toward the Negro there and in our Southern States. The missionaries that once undertook to teach the blacks by books and by sermons now teach them to labor; sentiment once tolerated intermarriage between the races, but it has now changed; the religious tendency is toward separate churches; the crimes of Negro men against white women are punished by death—more severely than crimes by white men against white women; and a deep concern for the Negro that was once a part of English public sentiment has died, just as a profound general concern for him has ceased to be as active a part of public sentiment in our Northern States as it once was. In other words, the white man in South Africa has somewhat the same attitude toward the blacks that the white man has in our Southern States, but with this radical difference (for here the parallel breaks down)—

The Southern whites have spent millions of dollars on the education of the blacks. Every Southern Commonwealth is committed to Negro education, and the effort to divide the public school fund so that the Negro schools shall receive only the part of the school taxes that Negroes pay has failed in every State. An influential citizen of North Carolina recently undertook to secure a Congressional nomination on a platform that was hostile to the education of the Negro, and he failed to get the delegates to the nominating

convention even from his own county. Not only is the Negro of our Southern States very much superior in civic qualities and in experience of civilization to the Negro of South Africa, but he has demonstrated his capacity for training, for thrift, and for responsible membership of the community. And the whites recognize not only his capacity, but the necessity of training him. The African experience is not a parallel to the American experience of today, but of a period that has passed. The several great and the many smaller schools for the all-round development of the colored race — to train character, hand and mind, all at once—are doing such work as was perhaps never before done for the lifting up of an ignorant and untrained mass of any population. So profound an effect is it having that it is fast changing our conception of popular education for people of all classes and all races. Not only is the Negro in our Southern States, then, the best specimen of his race to be found anywhere, but the conditions of his development are better there than they are anywhere else. The period of violent sentiment and of mistaken methods is passed. We have nothing to learn from the cruder and more backward conditions in South Africa; and we have made the way clear for the solution of the problem. The work that has been done and that is going on for the successful solution of the "Negro problem," by men of both races, by the sound part of public sentiment in every part of the Union, by the Southern Commonwealths and by Northern help—this is one of the most cheerful chapters in all human history. A man who does not see this has no historical perspective.

A FIELD FOR A LIVING SOCIOLOGY

THE practical dismissal of Professor Sledd from Emory College in Georgia because of an expression of opinion about the treatment of the Negro is especially inopportune now when the time is ripe for Southern colleges to do a conspicuous service by taking up this very subject of the Negro in Southern life for scientific investigation. Suppose that any Southern institution, instead of maintaining a chair of theoretical sociology, were to set its students at work with an inspiring investigator to answer definitely such questions as these in its own community:—

To what extent does the Negro own property?

What effect has the ownership of property had upon his family life, and upon his place in the community?

To what extent has the Negro been taught, hand and head?

What effect has such education had upon his family life, and upon his place in the community?

From such definite study of individual men and women and families in any community a body of facts would be got that would have the greatest value for the Negro himself and for the ruling class and for all students of the race problem. The making of such a study would give us sociological material worth having about the most serious social problem that we have; it would be admirable training for the young men that did it, and it would bring an enviable reputation to the institution that conducted it. It would put the whole world under an obligation for exact knowledge. A beginning of such work has been made by Dr. DuBois of Atlanta University and by the Negro conferences that have been held at Tuskegee and Atlanta; but there would be an additional value to the results of such first-hand study if the young men themselves conducted it who will in a few years have a hand in the control of Southern affairs.

THE JEW IN THE REPUBLIC

IT is estimated that ten years ago there were less than 140,000 Jews in the United States and that there are now more than a million. In the city of New York there are 600,000, and one-fourth of the population of Manhattan Island are Hebrews. Already, therefore, New York is the home of more of them than any other city, and the United States is sure before long to have a larger Jewish population than any other country.

It is a pertinent and interesting inquiry whether they will persist as a distinct race under republican institutions as they have for so many centuries under persecution in the Old World.

There are some reasons to believe that in the coming centuries they may, under free institutions, be swallowed up. Their religion, for instance, which is apparently their strong-

est bond, has so rapidly become liberalized in the United States, at least among the best-educated and best-to-do classes, that it no longer sharply differentiates them from Christians. Still, the race feeling remains strong even after religious differences have practically disappeared. While there are a good many Hebrew-Christian marriages, they are yet exceptional; and even the liberal Jews so greatly prefer Hebrew mates for their children that the whole influence of their social life is yet bent toward exclusiveness. On the other hand, the Christian anti-Jew feeling among the better classes of society is as strong as the Hebrew anti-Christian feeling. The Christian prejudice is persistent, too, in other social ways. The races mingle little in club life, for as a rule Jews are not admitted to Christian social clubs. But in clubs of a semi-political and philanthropic kind, they meet Christians on common ground. There are many hotels at which they are not welcome, summer hotels in particular; and there are others at which a Christian is seldom seen. At some of our universities, too, the same social distinctions are made. In other words, a social prejudice exists on both sides, and it continues quietly but firmly to assert itself even after the Jews have become prosperous and liberal in faith. Whether it is becoming weaker or stronger it would be hard to say.

All the while they continue to amass property, to get control of great financial institutions and of organs of public opinion; but in commerce and in finance they are not clannish, neither is there such a prejudice against them as there is in social life. In the professions, too, in several of which they have achieved distinction, the race feeling is less strong.

Taken all in all, the Jew is at home in the United States. He is not persecuted here. But he both suffers and practices social exclusion. He acquires some of the American vices, but even these have not eradicated his race feeling. He becomes an ardent American, but he remains a Jew. What effect free institutions and a liberalization of faith will have several generations hence it is hard to foresee. There has not yet been time fully to test the power of free institutions to make him an indistinguishable part of the population of the Republic. But there are strong indications that he may, gradually, of course, lose his identity, and contribute his genius and his physical tenacity to the common mass.

THE CONQUEST OF THE TROPICS

THERE were men who thought it a despicable thing a year or two ago even to speak of trade with our newly acquired islands; for they regarded it as base to think of their commercial value. But trade with us has value also to *them;* and our trade with them is no bad measure of their progress in practical civilization. Our Porto Rican trade relations, for instance, have been of great mutual advantage. In the year ending June 30, 1902, we bought from Porto Rico eight and a quarter million dollars' worth—four times as much as we bought in 1897; and we sold nearly eleven million dollars' worth—four and a half times as much as we sold in 1897. There has been a trade profit to both parties, and larger gains as well in luxuries for us and in a more prosperous and better-ordered life for them. Our trade with Hawaii and with the Philippines (leaving out war supples) tells a similar story.

Trade is not the only measure nor always a perfect measure of civilization, but it is a convenient and significant indication of the healthful activity of any people. The meaning of the increasing commerce of Porto Rico, Hawaii, and the Philippines (for their totals of imports and of exports as well as their trade with us are fast getting larger) is that these productive areas and these long-neglected peoples are coming into useful relation with the world and contributing and receiving the benefits of quickening industry. Their recent history is, in other words, an important chapter in the proper development of the tropics.

The proper utilization of the tropics is the most important task of our century. For more than a hundred years the arctic regions have appealed to the daring of mankind because of their hidden secrets. There are hidden secrets also in the tropics; but, apart from adventure and scientific investigation, the practical conquest of their great resources and the consequent development of tropical peoples are now demanded by civilization. This great task will give exercise to industry, capital, philanthropy,

trade and statesmanship for a century or two to come; and our experience with the comparatively small areas that we have had to do with only this brief time of four years will give many good lessons for the future.

AMERICAN CONTROL IN THE PACIFIC

TEN years ago or more, Captain Mahan pointed out that oceans do not separate peoples but bind them together; and that, just as the Mediterranean was superseded by the Atlantic as the world's great highway of trade, so the Atlantic would at some time be superseded by the Pacific. Men who keep their minds at home then read these signs as a sailor's dreams.

It was beyond the power of any man's imagination in that period of our parochial, political and commercial thought to forecast the swift march of events that have so greatly broadened our vision—our rule in the Orient, the important part that we have played in China, a cessation of trade with the Flowery Kingdom that profoundly affected political opinion even in conservative Southern States and showed the value of China to us, the ever-present thought in every European capital of the policy and of the strength of the United States as a world-power. But it was not beyond the reach of constructive minds that worked on large problems of statesmanship or of commerce to foresee the inevitable next conquest of cable and steamship; and the Pacific, with the swarming millions on its western shore, must at some early time be bound by wires and ploughed by many keels. And now Captain Mahan's prophecy is no longer a sailor's dream, but a plan undergoing practical execution.

Among many men who saw and understood were two of position and power—Secretary Hay and Mr. J. J. Hill, whose commercial imagination many years ago looked out from Puget Sound to the markets of Asia; and the late Mr. John W. Mackay saw that the cable system of the world was now ready for its largest link. The continued pressure of American expansive opinion forced an Isthmian Canal Act through Congress, and the constant traffic caused both by war and by trade has brought Manila as near to San Francisco as Liverpool was to New York generation ago.

are now, therefore, getting ready to cut the canal, the Pacific cable is to be laid from San Francisco to Manila and to the Asiatic mainland (by private capital under a most advantageous contract with the Government); a British line also is projected from Vancouver to Australia and New Zealand; and Mr. Hill's great ships will be soon in commission. Thus the Pacific is becoming a field for enormous investments. Our cotton fields and grain fields and our factories are nearer Asia than the centres of English or German trade are, and as our communication becomes swift and cheap, our present little annual export to Asia of ten millions of dollars' worth of cotton goods will be many times multiplied, and we shall feed and clothe and develop and supply the wants of the Asiatics with American wares in ways and to an extent that we do not yet dream of.

All these things would have come in time—at least, might have come—if we had had no war with Spain. But that was the occasion of our quick discovery of this opportunity. It was impossible, for instance, to arrange satisfactorily for an American Pacific cable before all its stations could be on soil controlled by the United States. From San Francisco to Honolulu is one stretch, from Honolulu to Wake Island another, from Wake Island to Guam another, from Guam to Manila another, and from Manila to the mainland the last. The meaning of this is the American control of the Pacific, shared by the English when the cable line from Vancouver by Fanning Island, the Fiji Island and Norfolk Island is laid; and the two systems will have easy connection between mid-ocean stations. While, therefore, the Atlantic will not in our own day literally yield to the Pacific its supremacy as a highway, the new century will see such a growth of Pacific traffic as men in the ante-cable days of sails could not foresee for Atlantic traffic.

THE WORLD-WIDE BUSINESS OUTLOOK

THE eminent French economist, M. Leroy-Beaulieu, recently made a world-wide review of commercial conditions as they are (since the South African War ended) at the beginning of this period of universal peace. He pointed out that the impetus to prosperity which the ending of the war was expected to give in Europe had not yet been felt. The unproductive expenditure

of a thousand millions of dollars was a great waste; and the South African mines cannot immediately begin their yield again. It will require both time and money to make them again productive. For a time, therefore, South Africa must continue to be an expense to the world, and not a producer. In Europe the promise of continuous peace gives a stable and hopeful business situation, but commerce is not especially active nor brilliantly profitable.

What concerns us more directly is M. Leroy-Beaulieu's view of the United States. Here, he thinks, speculation has been going on at too rapid a pace, and he doubts whether we have built our industrial fabric as firmly as we have built it rapidly. Within a year or a year and a half, he fears a reaction if not a panic.

On the other hand, Mr. J. P. Morgan is reported to have said, on his recent return from Europe, that we had hardly begun the consolidation of industry, and that greater aggregations than we have dreamed of will be made. Such a remark implies a belief in an indefinite period of money-making.

Whether or not Mr. Morgan made as specific a declaration as this, the general expectation is of continued prosperity and of the continued larger organization of industry for some time to come. Our foreign trade increases, our crops are abundant, our railroads are exceptionally prosperous, our iron and steel trade is fabulously profitable, we are not likely again to have an unsettling agitation of our currency—all the outward and visible signs of continued prosperity are favorable. The one subject of doubt is the stability of the great industrial combinations, some of which rest on a speculative basis. If any of them have too heavily discounted the expected prosperity of the future, the falling of their scaffolding will cause fright and timidity. A halt to speculation, and even a panic in inflated securities, will no doubt come at some time. But all the essential elements of prosperity now seem secure for an indefinite period.

Yet, in a time like this the wisest men act with reasonable conservatism, mindful that rapid as the organization of world commerce has been, we have not yet reduced indefinite prosperity to determinable laws. Ramshackle trusts and ill-led labor unions—in these there lurks a certain danger.

ARE OUR TRADE UNIONS FOLLOWING THE ENGLISH EXAMPLE?

WE have been congratulating ourselves that we are not as the English are—so held in bondage by labor unions that the normal product of our industry is restricted. As a rule, our self-congratulation is yet, perhaps, warranted. But restriction of two kinds is more common than the public is aware of. There are unions that restrict product—or, what is the same thing, they prevent work upon which their men are engaged from being done as rapidly as it might be done; and there are unions that restrict the number of workers. It was in these ways that the English unions began restriction, and in some trades we have no great distance to travel before we come to the same serious hindrances from which the English suffer.

Mr. Cunniff, who has been investigating the internal working of the unions for THE WORLD'S WORK, has found that the unions of the building trades, for example, have a distinct policy of restricting work. They have a large building in hand. It will give work to so many men for so long a time. If shifts of men are employed, more men will have work but for a shorter time. Shifts of men, therefore, are not permitted. The job must last as long as possible—for as few men as possible.

The long-sighted policy would be the reverse of this. The easier it is for owners and contractors to build, the more buildings will be put up. Moreover, the easier it is to build, the more contractors there will be. Every additional difficulty put in the way of building discourages it and has a tendency to concentrate it in the hands of a few contractors. Both tendencies so discourage men that fewer buildings are put up than would be put up under more liberal and far-sighted conditions. This was proved during the long period of building stagnation in Chicago, and it is true there yet.

Such a union policy is especially inopportune during this prosperous era, when many of our cities are being re-built and when an increasing number of families are building country homes.

But the question is much larger than the activity of any particular trade. If American labor unions generally restrict produc-

tion, our commercial expansion will reach its halting place sooner than the normal conditions of our industrial life warrant.

Here is a question as large as the question of the trusts. It is, in fact, a part of the same large problem. The restriction of production tends toward monopoly, whether it be done by an industrial combination or by a labor combination.

THE OUTLOOK FOR THE AVERAGE MAN

TWO brothers each inherited a small fortune—or what would have been regarded as a small fortune a generation ago. One of them made it his business carefully to guard his capital, and even to save a part of his interest. But the returns on safe investments have rapidly become less and the cost of living has become greater. He is, therefore, really a poorer man than he was at the beginning of his career. The other brother spent his capital in giving himself a thorough training as a physician. His weekly income from his practice is now larger than his brother's yearly income from his investments.

By this striking illustration and by many more, Dr. Albert Shaw, in the last convocation address at Chicago University (now published in the *Educational Review*), makes a survey of our fast-changing social and industrial conditions as they affect the outlook for young men, especially the average man. For such a man the outlook, he concludes in this admirably balanced, comprehensive survey, is better than it ever was before. As a more elaborate organization of society takes place, the social organization not only gives the average man more benefits and advantages, but it brings about such conditions of service that an increasing number of avenues of usefulness are open to him. "The margin of individual risk is destined to diminish," says Dr. Shaw, in conclusion (and every wide-looking man's observations will confirm this view).

"I think it true, also, that the margin of opportunity for obtaining very exceptional advantage over one's fellows in some particular direction is also to be diminished. But there will be a corresponding increase in the opportunity to earn honorable renown by the full devotion of one's talents to the social good in any chosen field. I hold that the general [illegible] of progress at the present time lies before us with exceptional clearness; that life offers rewards and opportunities, as never before, by virtue of the new social and industrial organization; and that the outlook is bright with hope, through the transformed environment that the community is providing for the individual, and through the widening field of opportunity, in consequence, that the individual fields of activity and service among his fellows."

FOR NATIONAL MINDEDNESS

A BRIEF recent article in this magazine about the need of a stronger national feeling in the South—a feeling by Southern political leaders that the problems of the whole nation are their problems—has called forth much commendatory discussion from the Southern newspapers. Put into action, such a broadened national feeling means the election to Congress chiefly, but also to all important political positions, of men who have a wider grasp on political and economic subjects than mere sectionalism or mere partisanship suggests. Such men may, of course, be of one party or of the other. There are such men in public life in the South, but they are not as numerous as the intelligence and the patriotism of the section demands. In the positive new work that has been done in recent years in making far-reaching policies, and in taking up new tasks of administration, it has been chiefly (but not wholly) Eastern and Western men who have taken the lead and done the labor. The venerable Senator Morgan, of Alabama, has identified himself prominently with the Isthmian Canal, but most of the progressive work and of the progressive thought on such great subjects has been done by men in other sections of the country than the South. The two national subjects that have been most discussed in the Southern States for several years are now dead—free silver and anti-expansion. Even the Democratic campaign book of this year hardly mentions either. All this discussion was anti-national and was waste wind; and national-minded men of both parties saw this from the beginning.

True, there is also an Eastern sectionalism (and a bad one) and a Western sectionalism (and a noisy one). It is true, too, that no section of the country puts into the public service any very great number of its ablest

men. But since the time is now come in the South for a growing freedom of speech and of action, and for a vision wider than section or party, the whole nation ought to get a larger contribution of thought from these States.

It is not definite action, however well directed, that is most needed from the South or from any other section, so much as it is open-mindedness and a feeling that every task and every duty of the Government, and every problem of our society, is our duty and our task and our problem; and this open-mindedness and broad-mindedness can show themselves in one party quite as well as in the other. They are individual traits, and not party badges.

THE SHRIEKING GHOST OF A DEAD ERA

MR. ANDREW SLEDD, Professor of Latin in Emory College, a Methodist institution in Georgia, wrote an article in the *Atlantic Monthly* for July about the Negro in Southern life. He maintained in effect:

1. That the Negro is an inferior and untrained race, and that Northern opinion has done harm in assuming that he is a white man with a black skin;
2. That he has inalienable rights as a man and as a member of the community which Southern opinion and action do not sufficiently respect; and
3. That the Southern lynching of Negroes is demoralizing.

Mr. Sledd wrote his opinions very frankly, but he discussed only the general aspects of the subject. He treated it as a great public question, as surely it is.

He is a Southern man, and he is said to have been an acceptable member of the faculty of his college. But, when his article was criticised (most severely by a woman) in some of the Southern newspapers, a demand was made for his dismissal, and he resigned. In other words, a man who had hitherto had the respect and the confidence of his fellows was practically dismissed from the faculty of a locally important college because of the free expression of opinion that ran counter to a section of public sentiment about him; for there are, of course, many Southern men who would not dissent from Mr. Sledd's opinions, and there are many more who, though they differ with him, are willing for him to enjoy perfect freedom of opinion.

But the important question is not whether a section of public opinion in Georgia or the governing body of the college agrees or disagrees with Mr. Sledd; for they have a perfect right to disagree with him, and they have the right also to dismiss him because they do not like his opinions, or for any other reason. But they are narrow and short-sighted to dismiss him for this reason. For such an action is interpreted everywhere in the academic world as notice that a free expression of opinion on public subjects is not wanted at Emory College—that it is not an institution for the liberal culture of youth, but for the perpetuation of particular opinions—not a place to arrive at the truth by the free discussion of every great subject, but a place for inculcating certain fixed ideas. An institution under such timid and narrow management is not likely to secure the broadest and wisest men to serve it. The teacher must demand absolute freedom of thought and freedom of speech on all public questions; and an atmosphere of narrow restriction is stifling for large men to live in and unfortunate for youth to grow up in.

It is especially unfortunate, too, that such an incident should occur now in a Southern college, for Southern sentiment is so fast becoming liberal, especially public sentiment in Southern educational centres, that the whole country is watching its growth with admiration. The growth of liberality of thought in the South is a noteworthy fact.

Suppose, instead of forcing or even permitting Mr. Sledd's resignation for such a reason, a courageous member of the Board of Trustees had arisen in meeting and said: "Gentlemen, we can do either one of two things: We can listen to temporary and local clamor, made by persons who have not perhaps even read Mr. Sledd's article, and we can dismiss him; or we can pay no attention to it. If we pay no heed to it, we may lose a few students this year—a very slight loss, and we shall keep the respect of the whole academic world. But, if we dismiss him for this reason, we shall do the college an irreparable injury; for our action will be interpreted as notice that we do not wish freedom of opinion here." A little leadership is a great quality, especially among timid men when they are stampeded by a shrieking ghost of a dead era.

THE IDLE AND THE SPORTING RICH

FOR a long period, ending a generation ago, there was unprecedented prosperity in the United States. There was an especially high prosperity in New York, where its display was then concentrated. It was an era of great luxury (as we then measured luxury) and of extravagant living. The buccaneers of Wall Street wrecked railroads and pocketed the spoils. The flashing extravagance of hotel life was then first developed. Delmonico made the epigram that he could sit in his office in the evening and tell how the stock market had been by the sound of champagne corks. Places of feasting and revelry were overcrowded with displays of wealth such as had then never before been seen in New York. Then came a crash. Almost in a single day it ceased. The corks popped less often—hardly at all for a time. Those that had lost dropped out of sight. Those that had won became quiet. It was a dramatic close of an era in the city's history and in the history of the country.

But this was all a tame play—this outburst of extravagance which men passing middle age now recall—in comparison with the usual diversions of the rich in our day. The money-making of that time was commonplace beside the colossal fortunes of our own era.

Now its stages for spectacular display are Newport and Saratoga—Saratoga in particular. For Newport, with its dinners at which monkeys sit at table and its dining tables whereon live ducks swim,—with a whole theatrical company brought from New York for an evening's private entertainment, with the spending of $75,000 on a single dinner and ball—these do not stir the blood nor take hold on the imagination. These are tame wastes of wealth, a sort of drunkenness without conviviality,—the amusement of dull and unintelligent satiety. But Saratoga is different. There you may bet one dollar or half a million on a horse; you may try your luck for small stakes or high in the "club"; the sporting people of the whole country gather there; the gentleman who loves sport for sport's sake, and the gambler who loves it for gain. The old gambling places have come out of their former half-obscurity and taken on a publicity very like Monte Carlo. Extravagance and a display of wealth have gone to the furthest limit yet reached. Many millions of dollars changed hands this past season, and preparations have been made for a very much more active season next year. The quiet millionaires of New York and the noisier "plungers" from the West meet there as they meet nowhere else.

Saratoga and Newport have thus become measures of American fatness—one of dull world-weary wealth, the other of the restless aimlessness of riches which finds an outlet in racing and gaming. If they were representative of the great body of American life, a solemn sermon on Sodom, or on the dramatic close of one extravagant era in New York, would point the proper moral. But the real moral now is wide. The great American people hardly know either Newport or Saratoga, nor do they give a moment's heed to either. The idle rich and the sporting class are mere incidents of our era of great material development. Neither sets the fashion in conduct, in expenditure, nor even in dress. They are unimportant. They do little harm except to themselves. Both together, for instance, do no such public hurt as the old railroad wreckers in Wall Street did. And we have the further advantage that the idle rich and the sporting class are in the summer segregated from the rest of the population. While the palatial cottages at Newport and the hotels at Saratoga were sheltering a few thousand persons, the mountains and the seashore and the lakes of our vast area were giving healthful rest to well-balanced, hopeful, productive millions, whose life is not disturbed by extravagant balls or grotesque dinners, nor by great winnings (and equally great losings) at the "clubs" or on the race tracks. We have far outgrown the influence of any one "set," even the influence of any one city. We have outgrown the disturbing influence of our own idle rich.

A FAD THAT IS WORTH WHILE

IF you make inquiry among the men of middle age of your acquaintance you will be surprised to discover how many of them take systematic physical exercise every day, not only by outdoor sports at this season of the year, but by indoor exercise according to some "system." The number of books and of pamphlets on the subject, and of advertisements of different "methods,"

and the number of instructors that give their lessons by mail, indicate the fashion. The periodicals for women, too, describe elaborate "courses" in physical instruction.

The subject has become a "fad," and many an obvious "lesson" that every man and woman of common sense has known from childhood is sold for a fee—as a new discovery. But the fashion marks the rapid progress made in the prevention of disease and in sane living, and it is as wholesome a "revival" as ever swept over the country. It shows much of the intimate simplicity, by the way, that used to be shown by the great "revivals" of religion; and it has a literature of "experiences" that in tone is very like the literature of religious reforms. The disciples of one master, for example, wrote these letters:

"Your system has made a new man of me. I have been born again. My muscular power is ten times as great as it was. Digestion perfect."

"I am 54—as young as I was at 18. Life has a new meaning."

"I was troubled for years by imperfect nutrition. I could eat only a few foods. Now I eat anything. The table is a pleasure for the first time in ten years."

"My family have all reduced their waists from two to five inches."

These simple and touching confessions doubtless argue the same ignorance and credulity that keep the vendors of patent medicines in luxury. Every pill-maker and every owner of a mineral spring has thousands of such "experiences." But the "exercise doctors" have this advantage—they have contrived by their literature and by their activity to induce multitudes of persons of sedentary habits to take such healthful exercise as they every one might have taken all their lives but did not take.

A generation ago systematic physical exercise was something for athletes and for soldiers and sailors and for boys. Few men thought of it as a preserver of health. True, physicians used to talk in a general way of "exercise"—to men who had already become ill. But such general advice built no muscle and gave small help to digestion. It is not to the honor of the medical profession that American men and women had to receive definite instruction how to take effective exercise from "professors of physical culture." But so general has the fashion become that the next generation will be wiser; for every year the public schools give more intelligent attention to the subject. This means an enormous gain in health, in working power, and in happiness.

THE CARNEGIE INSTITUTION

NO great experiment in education, if it may so be called, will be watched with as keen or general an interest as the conduct of the Carnegie Institution. It has an endowment of ten millions, not to be spent in buildings and apparatus and in maintaining a staff of teachers, but in widening the bounds of knowledge by any method that the trustees may think best. Dr. D. C. Gilman, the President, spent the summer abroad to ascertain what are the most interesting investigations that are going on at the intellectual centres of Europe and what are the most promising fields of work; and eminent men have been invited to make suggestions of problems to be taken up by the Institution.

It is not a scientific statement of the aim of the Institution to say that its task is to discover and to aid men of genius (men past forty lose the word "genius" from their vocabulary"): it is rather to take up great problems (in science, for example), and to aid well-equipped men of ability and of devotion to give their whole time to them—to relieve original investigators of the necessity to earn their livelihoods. The first considerable appropriation made by the Institution was to maintain the marine biological work that has been done in summer at Wood's Hole, Massachusetts; and perhaps there is no more promising scientific work in the world—that is, work in pure science, for the Institution of course cannot aid any work in applied science.

The selection of subjects for investigation is not difficult, for the masters of every branch of science can point to great unexplored fields. The difficulty of finding the right kind of men is far greater. Scholarships and fellowships and such aids as have hitherto generally been given to research have been given through our universities and colleges, and they have, of course, been given to youth. The result has been a large number of theses for academic degrees, and other such juvenile performances. On the other hand, the Nobel

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amount paid to policy holders for all purposes. Expenses were about $77,500,000, so that there was a surplus of more than $120,000,000 in which policy holders did not participate at all.

These are not the figures of a phenomenal year. They represent a tendency toward the accumulation of large surpluses. The simple fact is, that the income of these institutions is enormously greater than their outgo. The extent of the investments and the manner in which they have been distributed represent the fact that the insurance company has ceased to be merely a benefit association. The ganglions of its life have traversed the entire financial world. What is true of insurance companies in general is especially true of life insurance companies. The more important of these have become not only what their name signifies. They are, in fact, banking corporations, trust companies, safe deposit concerns, and possess, in addition, a powerful influence in the affairs of railroad corporations.

For example, the Mutual Life Insurance Company of New York owns a controlling interest in the $2,000,000 capitalization of the United States Mortgage and Trust Company, as well as several million dollars' worth of the bonds of the same corporation. The New York Mutual owns almost control of the Guaranty Trust Company. A very considerable interest in the great Morton Trust Company is similarly controlled. Each of these companies has offices in the New York Mutual's building in the City of New York. Each is in close touch with the others. The resources of each are ready at any time to cooperate with those of the others.

Notice the Equitable Life Assurance Society's report. This society—whose capital stock is $100,000—owns absolute control of the Western National Bank, with its $2,100,000 capitalization, and of the Mercantile Trust Company, with $2,000,000 capitalization. Subsidiary to the Mercantile Trust Company—which is an exceedingly powerful concern—is the Mercantile Safe Deposit Company, itself a most profitable organization. All these corporations rest under the wing of the Equitable Society, having offices in its building. It may be assumed that, for all practical purposes, they are one institution.

Within the current year the activity of the great life insurance companies in the financial market has been more pronounced than during any previous period. When the International Banking Corporation was organized in January with $10,000,000 resources, it was announced that the Equitable Society had taken a large interest in the company. That new banking institution was formed expressly for the purpose of facilitating a foreign exchange business between New York and cities of the far East. Immediately upon its formation it was found that the Guaranty Trust Company, fostered by the New York Mutual Company, had been equipping itself also for an international business in the same territory. Certainly no newly organized international banking corporation could have a more substantial support than that of a great life insurance company. The Equitable and the Mutual, with their highly organized foreign business, could immediately throw into the hands of an international bank a large amount of patronage.

Skipping from these events of January to occurrences of more recent months, it is found that, upon the organization of the United States Realty and Construction Company, it was officially stated that the Equitable Life Society was to be largely interested in the combination. With its tremendous holdings of real estate and real estate mortgages, such a life insurance institution would naturally be esteemed the most powerful possible backing for a great realty organization.

The spreading of interests by the insurance companies has been a very natural development. Free from the hard and fast restrictions such as surround savings banks, insurance companies can place their investments almost anywhere they choose. That there has been possible very great latitude in this matter is evident from this striking quotation from the last annual report of the trustees of the New York Mutual Company:

"Where a choice is to be made between different investments, which, after a careful study of their character and of every feature promise equal security [it is the practice of this company], always to choose that from which the largest yield for the benefit of the stockholders may be expected. It is not believed that the name or external form of a security is an infallible guide in making this choice. There is no such unvarying nomen-

clature of investments, that those which bear one name may always be confidently regarded as perfectly safe, while those which bear a different name must always be looked upon with suspicion."

It can be stated as a cardinal principle of life insurance investments that they should be entirely safe and certain of yielding at least some interest. But this general rule does not prevent the insurance company from making very large deposits with closely allied trust companies or banks that the allied concerns may participate in the profits of some tremendous "underwriting syndicate" organized to float a United States Steel Corporation, for instance. The trust company, with its almost unlimited powers, may do much that the insurance companies may not do. The insurance company, therefore, provides the resources for the operations of the subsidiary corporation. The benefit comes in the increased dividends of the ancillary institution.

The insurance company has a large amount of title insurance to place, because of its extensive real estate holdings. It selects its company; then it makes a large investment in the capital stock of the concern, regaining a considerable portion of the fees paid for services in the form of dividends upon the stock. The New York Mutual Company owns more than one-fifth of the capital stock of the Title Guarantee and Trust Company's $2,500,000 capitalization, and the Equitable Society owns nearly $200,000 of the Lawyers' Title Insurance Company's stock. Curious evidence of the variety of these insurance investments is found in the conspicuous experience of an insurance company which owns a valuable building in New York and desired to rent a section of the building to a bank. A large amount of stock was taken in a newly organized bank simply to induce the bank to rent the vacant portion of the building. The bank, however, did not succeed; so the insurance company increased its holdings of stock, nominated a new management, and by liberal coöperation placed the bank upon an exceedingly profitable basis.

The personal element involved in these
vings of interests is most important.
ely likely that the Equitable Society
chase $5,000,000 of the stock of the
nia Railroad unless the insurance company were represented on the railroad's board of directors. It is a general principle of corporation management that the largest stockholders shall be represented in the directorate of the company. Mr. James H. Hyde, the late president of the Equitable, was chosen a member of the Union Pacific railroad board at a time when the insurance company was buying large holdings in that corporation.

The insurance companies of course control the directorates of corporations in which their holdings of stock are predominant. In the directorate of the Western National Bank there are many of the directors of the Equitable. Mr. Valentine P. Snyder, president of this bank, is likewise acting president of the International Banking Corporation. There seems to be a direct relationship between the fact that the Mutual Life Company owns $2,000,000 of the $10,000,000 capital stock of the New York National Bank of Commerce and the fact that Mr. Richard A. McCurdy, president of the insurance company, is a director in the bank.

No mention has been made of the New York Life Insurance Company. That company desired to do business in Germany, and the laws of that country forbade an insurance company holding any industrial securities. That law has curtailed the New York Life's list of investments, but that company is nevertheless a great figure in the financial market. Mr. George W. Perkins, chairman of the finance committee of this company, was not long since made a partner in the firm of J. P. Morgan & Co. Mr. Perkins is also chairman of the finance committee of the United States Steel Corporation. It can be safely said that through loans, always of course properly secured, through deposits in banks, and through other media quite as legitimate as ingenious, the New York Life Company manages to avail itself of large profits placed by J. P. Morgan & Co. within the reach of their patrons.

The tremendous accretions of power of these great insurance companies has excited alarm in numerous quarters. Russia, always jealous of the funds of her people, requires that all money paid to insurance companies in that country shall be invested there. Germany imposes a similar regulation. France is upon the verge of doing the same thing. One important American insurance company

invested $2,000,000 in real estate in Paris largely for its political effect in warding off the passage of just such a law. England's insurance laws are as liberal as could be wished, yet an American company maintains a voluntary bank deposit of $500,000 in a London bank to allay any apprehension.

In this country insurance companies themselves are seeking to devise some means by which the money paid to them in premiums, interest on bonds and mortgages, etc., may be placed within reach of the communities from which the income is derived. A large amount of money is placed in State and municipal bonds, but these do not afford any material relief to the individuals from whom premiums have been drawn. Relief is possible, to some extent, by the proposed revision of mortuary tables, which is expected to take place within a few years, and which, it is believed, will reduce the size of premium payments.

It is possible that the very solution of this problem of distributing the resources of these companies may come in a still greater development of investments in diversified enterprises. The supply of available investments of the orthodox type is getting very limited. The most conservative companies do not expect during the next twenty years to reap more than three per cent. upon their investments, estimates in this respect having been very generally revised within the last few years. It will be necessary, therefore, for these companies to branch out into as many new fields as prove safe and profitable. It is not impossible that what has been done by the larger companies in the money centres may be extended over wider areas. At any rate, the problem of insurance investments—as it concerns the money markets, the policy holder and the community at large—is assuming novel phases, commanding the attention and study of thoughtful people.

FROM THE HORRORS OF CITY LIFE

THE EXPERIENCE OF A DWELLER IN FLATS, IN BOARDING HOUSES, IN "NINETEEN FEET OF BAKED MUD," AND IN SUBURBAN HOMES, WHO (THE ILLUSION OF CITY LIFE GONE) AT LAST FOUND HAPPINESS IN A COUNTRY HOME

BY

THOMAS DIXON, JR.

I THINK the one great passion of my life has been the dream of a beautiful home. This home-dream crept slowly into my soul long before the face of a woman came to smile at all other hopes and fears. It required no pleading to make her see its beauty. She, too, had seen it in a vision long before. Then tiny baby feet came trooping into a cottage before the money was in the bank to build this dream.

Another passion of my boyhood was the hope of life in a great metropolitan city. From the distance of the farm this vision was radiant with the splendor of wealth and power. I dreamed of its grand boulevards, its beautiful parks, its palatial homes, and its gleaming lights. The glow of life from its myriads of people filled the horizon of my youth with the glory of an endless sunrise.

So in the natural course of events New York swallowed us. We struggled bravely for a while to save both these dreams. First we rented a modest little slit-in-a-wall fourteen feet wide, far uptown, for which we paid one thousand dollars to the landlord annually, and five hundred, more or less, to the elevated road for the right to be jabbed in the ribs while we held to a strap to get there. Then we tried a nice "airy apartment" downtown. It had six "rooms." One opened on the street, four looked bravely down into a dark well, and the kitchen opened on an iron grillwork that gave it the appearance of a jail. The children were omnipotent and omni-

lightful time spending a thousand dollars decorating it to our own taste. It was a neat brownstone front, nineteen feet wide, in a solid block of similar houses. It had a high stoop, iron bars on the basement windows through which we looked from the dining table, and a kitchen behind this dining-room opening into the paved cat yard 19 x 20. The floor above contained a narrow hall, parlor and library. The next story had two bedrooms and a bath room, and the top floor had two "large" rooms and two small ones inside. The wood was hard, the mantels and chandeliers pretty, the fireplaces poetic looking, with iron logs to imitate wood, and it cost us twenty-five thousand dollars. The taxes, insurance and repairs still held a fixed charge on the place of about $350 annually. A house in New York is the easiest thing a tax-gatherer has to manage. Only one man in ten ever dares to own one. The rest keep moving. Within six months the dream had faded. Our home was just a nineteen-foot slit in a block of scorched mud with a brownstone veneer in front. Our children were penned in its narrow prison walls through the long winters, and forbidden to walk on the grass in the cold dreary spring. The doctor came every week to see one of them for something.

And then the longing for the glorious country life in which we had both been reared came over us with resistless power. The smell of green fields and wild flowers, the breath of the open sea, the music of beautiful waters, the quiet of woodland roads, the kindly eyes of animals we had known, the memory of sun and moon and stars long lost in the glare of electric lights, began to call. We sat down in our little narrow parlor, with its cast-iron firelogs and porcelain taper chandeliers, and cried over it all.

The disillusioning was complete. We had stayed in New York eleven years, moved twelve times, worn out three sets of household goods, and aided in the revival of the carpet trade, before we found out what ailed us.

At last we knew that the stamping-ground of the great herd might be a good place for trade, but that God never meant for man to build a home and rear children in it.

We moved to Old Tidewater Virginia, the oldest, most primitive and beautiful spot in America, a bit of wild, "undeveloped" nature

ELMINGTON MANOR THROUGH THE TREES

in the heart of the rushing life of the Atlantic seaboard. Here we realized the dream of life, a stately old Colonial home of two hundred years, called Elmington Manor, situated on the shores of the Chesapeake Bay. Its gleaming ivory pillars flash their welcome from both sides of the house through the deep shadows of over three hundred trees that shade its wide lawn.

The farm has five hundred acres, three hundred and fifty under cultivation and one hundred and fifty in woods. We keep eleven horses, six cows, a dozen sheep, four bird dogs, chickens, ducks and turkeys. We have a

THE REAR VIEW OF ELMINGTON MANOR

"NINETEEN FEET OF SCORCHED MUD"
The house in New York

two-acre garden with greenhouse for winter vegetables, an acre of strawberries, an acre of raspberries and dewberries and two acres in grapes. We have an old orchard and a young one with all the fruits of the temperate climate. We have a mile water front with full riparian rights, and the Old Dominion steamer has an artistic little dock on the upper end of the lawn which gives us daily mail and traffic with Old Point and Norfolk and the outside world. There are no railroads in the three counties of Gloucester, Mathews and Middlesex. We live in Gloucester, and around us on the beautiful land-locked arm of the Chesapeake called North River we can see from our porch fourteen water-front homes. These three counties are intersected by a network of tide rivers and creeks, like the veins of a leaf, making it a veritable rural Venice.

Back two miles in the high hills rise cool streams of fresh water to turn our mill-wheels and pour into the sea, giving us the finest oysters in the world. We have twenty-five acres of these oyster grounds in front of our home.

The fields are so full of quail they nest in the garden and orchard and sometimes mix with the chickens, while in unbroken reaches of three thousand acres of forests roam flocks of wild turkeys whose ancestors furnished food and sport for Powhatan, Pocahontas and Captain Smith. The waters are full of fish, and our baby boy can catch enough for dinner within a hundred yards of the house any day from the first of May till the first of November. In the winter the wild ducks, geese and brant give us the sport of kings. We keep a pen full of diamond-back terrapin as we keep a pen of pigs and fatten them on crabs. Crabs and clams are so plentiful that

"THE LAWN IS NEVER BARE"
At Elmington Manor

ACROSS THE LAWN AT ELMINGTON MANOR

THE WHARF
Where the Old Dominion boat lands daily

they are considered a very plebeian diet. We keep a naphtha launch, two small sailboats, three rowboats, and an ocean-going schooner yacht.

I had always desired a home that had some association with history and yet one on which I might stamp the imprint of my own mind. Elmington Manor fulfilled both these desires. The house when we bought the estate was simply a huge square brick struc-

"LIE DOWN IN THE GRASS, DREAM AND REST"

ture finished with Portland cement and painted brown. It was beautifully situated on its great peninsula lawn of fifteen acres. From the land side the avenue drive stretched away from the gate through giant trees two miles to the hills and the county road. On the water side it looked majestically out to sea over a sunny stretch of greensward dotted with holly and flowering shrubs.

Its roots are deep set in Colonial history. Its broad acres were a Crown grant two hundred years ago. A short drive to the south is the village of Yorktown, the scene of the siege and surrender of Lord Cornwallis to Washington and our French allies. On this side the York River stands towering old Rosewell, the most palatial country establishment in America when built by the Pages. Near Rosewell stands the ancient chimney of the Indian emperor, Powhatan. This chimney was built for Powhatan by the tribes which acknowledged his supremacy under the direction of Captain John Smith's colonists. Across the York but a few miles from us are old Williamsburg and Jamestown.

The present house at Elmington was built by Dr. John Prosser Tabb, fifty-seven years ago, at that time the richest and most influential man in the county. Its walls contain the brick from the old house built in the earliest Colonial days.

These walls are three feet thick. The house is three and a half stories high and contains thirty-two rooms. The hall is twenty feet wide, thirty-five feet deep, and from its rear circular wall the winding mahogany stair sweeps gracefully up three stories into the gallery of the observatory. There is not a shoddy piece of work in it from cellar to attic. The mahogany rails and spindles are the finest finished handwork, the window and door sills are massive Italian marble, and the hard pine floors so evenly and smoothly laid they will hold water. The floors are laid on oak sleepers set only ten inches apart, and are back-plastered and sand-ballasted.

FROM THE LIBRARY WINDOW

THE NARROW HALL IN THE CITY APARTMENT

ELMINGTON'S GRAND OLD HALL

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e open grate fires, and we
at for all the spaces by

placing two tubular hot-air furnaces in the basement. Our winters are usually so mild that roses blossom in the flower-garden in December.

I had dreamed all this complete from the moment I saw the house. The actual doing of the things was a revelation and a liberal education. I figured on $3,000 for the job of painting, decorating, water, heat, and modern conveniences. The plumbing cost $2,350, and I got good value for the money. The bills aggregated $7,500. But when it was done it was a joy to look at it. The effect was massive and dignified, and yet homelike and inviting. We had something to show for our money, and, what was a great deal better, we had something that would stand the test of time. Its great hall and grand old rooms with their lofty ceilings give meaning and dignity to daily life, and their memories link us in fellowship and sympathy to a mighty past.

And we got all this for the price of nineteen feet of scorched mud in New York.

"THE CREEK FLOWS GRACEFULLY THROUGH THE LAWN"

AMSHIPS

ENGERS—THE NECESSITY OF
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OCCUPATION IN THE WORLD

PERRY

BY HARRY COUTANT

five years," and the speaker shrugged
houlders in the direction of a great liner,
ing slowly out of her dock. Her decks
black with an agitated mass of humanity,
ing handkerchiefs, flags and hats—shout-
the last farewell. Stretching from bow
midships along two decks were the first
on passengers; then the quarter-section
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THE "BIG KAISER" LEAVING ITS DOCK

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PUTTING FIRST-CLASS BAGGAGE ABOARD THE *ST. PAUL*

and conduct of the American interests of these companies. Vessels are provisioned, docked, coaled, sent out; filled with freight and passengers; rates for passengers and freight are adjusted, insurance taken out and paid, just as though they were operating a line of their very own.

BARRELS OF FREIGHT COMING ABOARD

A TYPICAL ASSEMBLY ROOM ON ONE OF THE GERMAN BOATS

COMPETITION AND CONFERENCES

The competition between the great steamship companies has always been strenuous.

ING OFF THE LAST LINE
on the pier to see that the ship gets safely off

The North German Lloyd and the Hamburg-American lines both touch at German, British and Mediterranean ports, and a rivalry between the two results, while the American, White Star and Cunard lines compete with the German lines at the English ports. The American and the German lines also put in at Cherbourg, thereby coming in contact with the strong and formidable French Liner. That this rivalry may not be too deadly the steamship companies have an understanding as regards passenger rates, known as the "cabin conference," which is held each year and a schedule of first and second cabin rates is established. This conference is subdivided into three parts—the Continental conference, the North Atlantic conference, and the Mediterranean conference. The year is separated into three seasons—summer, winter and intermediate. The summer season usually dates from April to August—when rates are

highest—the intermediate season from August to November, and the winter season from November to April. The lines are thus placed on an even footing. The same minimum rates are charged for the *Deutschland*, *Kaiser Wilhelm der Grosse* and the *Kronprinz Wilhelm*, which are placed in the first class; the same system prevails in vessels of the second class,—including the *Oceanic*, *Kaiserin Maria Theresa* and the *Campania*, *Lucania* and *St. Paul*. Thus the system is utilized down through all the grades of steamships. Occasionally a line used to break from this agreement on the ground that it was not getting its share of business under existing rates. As a result, rates would go tumbling among all the companies. But experience soon proved that underbidding was mutually destructive, and cabin agreements are abided by.

LEAVING THE DOCK

SPEED, SAFETY AND CONVENIENCE IN TRAVEL

The American representative of a great foreign line devises all the details of executive management and personally sees that they are carried out. He employs a staff of about

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travelers are mercurial. It is to the requirements of the Cabin Department then that the steamship owners devote their greatest attention. Speed, safety and superior accommodations have been the demand of passengers since transatlantic voyages first began. From the old packet ship to the early steamships was the first step; then came the faster vessels. Space devoted to cargo was encroached upon by larger engines, boilers and bunkers; pudgy, bulging sides gave way to the trim, narrow racing lines of to-day. Speed and the arrangements for the comfort of passengers have robbed the ocean greyhound of some of its freight capacity.

Every one recalls the intense excitement aroused over the record-breaking contest waged by the Cunard and White Star lines with the *Majestic*, the *City of Paris*, the *Etruria*, and later by the American liners, *St. Paul* and *St. Louis*, and the Cunarders, *Lucania* and *Campania*. Still later is the struggle between the Hamburg-American Line and the North German Lloyd Line. All this was the result of the ceaseless call for greater speed. The lines had to cater to it or drop to the place of second-rate companies. The risk has been great, but it has paid a thou-

MARCONI WIRELESS TELEGRAPH HEADQUARTERS ON BOARD SHIP

WAVING GOOD-BY AS THE SHIP GOES OUT

TWO OF THE SMALLEST ARRIVALS
Waiting to start for Ellis Island

sandfold,—witness the pecuniary rewards of the lines which are racing the *Deutschland*, the *Kaiser Wilhelm der Grosse* and the *Kronprinz Wilhelm*.

When the *Grosse Kaiser* broke the record some time ago a director of the Hamburg-American Line was asked what he was going to do about it.

"Build a new ship," was the quiet reply. Apparently the four odd millions of dollars involved was only a detail. A new ship was built,—the *Deutschland*. She has yet to be beaten. But the North German Lloyd people think she will be next April when their new steamship, the *Kaiser Wilhelm II.*, makes her maiden trip.

The British and the American lines long ago dropped out of the race. The White Star Line is making an issue of the enormous boat of average speed of the *Oceanic* and *Celtic* type, and the financial results so far have been gratifying. The Cunard Line depends upon its conservative clientele and upon its record of "never having lost a life."

DEALING WITH PROSPECTIVE PASSENGERS

To establish a clientele must be the first

DOCKING ONE OF THE BIG SHIPS

duty of the Cabin Department. In the North German Lloyd Line they have this for a watchword: "The greatest element of success is a satisfied passenger." Once a passenger books, the Cabin Department manager must see that he books again. When a passenger books on the Lloyd or the Hamburg-American Line it is understood that he expects to get over in a hurry, and at the same time quickly and comfortably. Consequently there must be no failure in any one of these things. The five clerks who attend to the booking of passengers must possess sublimated tact, finesse and knowledge of human nature. They must meet the wishes of persons, and if they cannot do this they must adroitly switch the prospective passenger's ideas to meet the accommodations that are available, and at the same time induce him to believe that the latter was what he wanted all the time. He must not forget a name, and he must remember in a general way the stateroom that the patron occupied on former trips. A just complaint against a steward means that steward's dismissal—a passenger's favor is of much more value than a steward. The other day a wealthy Chicagoan came into the office of the line he patronized and wished to be booked for a favorite vessel "in the suite I had last year." Unfortunately that suite was taken, and it took the combined efforts of clerk and agent himself to assure the patron that the suite on the other board side was exactly as good. Such diplomacy is constantly demanded. On many vessels they do not have staterooms numbered 13; passengers will not book for a room bearing that number, and until recently few will book on a vessel sailing on Friday,—lines leave on Friday, though, from the English ports and many from the German. All the great lines have built up an enormous clientele, some patrons even booking for a prospective passage one and two years in the future. In the summer particularly a moderate-sized ocean steamship's officers and passengers are like a big family, so well have they become acquainted in past voyages. The big boats, however, floating cities of people, are necessarily more conventional.

PREPARING THE PASSENGER'S COMFORT

But the new passengers must be looked after; each line must get its share of the increasing traveling public. And in this side of the business the Germans far outpoint the English lines. Not satisfied with the advertising which it receives in the news columns of the daily press, the steamship line seeks to attract new patrons by advertising circulars, by the distribution of literature extolling the line and the beauty and interest of foreign points with which it connects. This is done by the Advertising Department, and an important department it is. Then, too, there is the press agent, who usually conducts a periodical devoted to the interests of the line which employs him.

Supplies for the North German Lloyd Line are purchased by the chef, cook, chief steward and pursers of the various vessels. At the end of each trip they make out a requisition for the stores they need and this is passed upon by the superintendent, who, in the case of the North German Lloyd Line, has charge of the piers and docks. The supplies carried by a great ocean liner are enormous. Here is what a recent steamship had in her larder when she sailed recently:—20,000 pounds of beef; 500 pounds of fresh pork; 3,500 pounds of mutton; 450 pounds of lamb; veal 500 pounds; sausage 300 pounds; liver 250 pounds; corned beef 2,900 pounds; salt pork 2,200 pounds; bacon 479 pounds; 500 hams; 8 dozen tongues; 200 sweetbreads; 2,100 assorted fish; 5,000 oysters; 5,000 clams; 500 soft shell crabs; green turtle 200 pounds; 50 geese; 350 fowl; 300 squabs; 500 snipe; 500 quail; 216 ducklings; 101 pair of wild game; 1,500 pounds of butter; 1,200 eggs; 400 cans of condensed milk; 1,000 quarts fresh milk; 400 quarts of ice cream; 12 barrels of apples; 40 boxes of pears; peaches and oranges; 124 barrels of flour and 500 other items.

And there are other tasks of great magnitude. The Cabin Department must arrange attractive convenience for passengers, such as facilities for speedy connections, handling of baggage, and the like. The French line, for example, checks your baggage through to any point in France; has a special train waiting at Havre to take you to Paris, and supplies wine like water. And, too, it makes a point of its cable service. The Hamburg-American Line runs a fleet of fast steamships to Mediterranean ports, and several excellent North Lloyd liners are kept in the Mediterranean

service all the year round. Each year the two German lines and the American line send an excursion steamship to the West Indies or some such place. All vessels, whether fast or slow, are beautifully equipped. On all German vessels bands composed of second cabin stewards furnish music during the meals. The North German Lloyd Line in recent years has adopted a training system. Regular training ships are employed by the line, and boys are enlisted and graduated and appointed to positions in the regular transatlantic service, just as though they were in the navy.

ARRANGEMENTS ON BOARD SHIP

At one time steamship managers had an idea that great steamship traffic from this country depended upon some great event abroad—the Paris Exposition, the coronation of King Edward and the like. But with the increase of wealth, the tide of European travel has risen steadily, until at present steamship men recognize no need of special attractions abroad. Europe itself is the loadstone.

Early this year, however, a steamship man prophesied a rush to Europe in the spring as a result of the coronation of King Edward VII. The newspapers took it up, and as a s t thousands revoked their decision to go abroad this summer, in order to avoid the "coronation rush." As a consequence there was merely an average summer season. It is only one example of the fussiness of the American traveling public. It has to be watched, catered to constantly, and handled with rare *finesse*.

Each year sees some new luxury of appointment, some new convenience to attract voyagers. Electricity to furnish light and air in cabin, saloon and steerage was introduced, and the deckroom was enlarged for exercise and recreation—nothing contributes so much to the success of the great *Oceanic* as her great spacious decks. Libraries filled with books of reference and the latest fiction; music rooms with a piano and perchance an organ; bath rooms and smoking rooms, are now important adjuncts to the great steamships. The smoking room of a large greyhound is a joy forever. Here card games are played and pools on the daily runs are made. And they gamble. The lines would like to prevent it, but they cannot. Some of their best patrons are inveterate poker players. But the captain has his eye on this diversion, and if too much money is being won and lost, or the excitement is getting too intense, he asserts himself. Professional gamblers and sharpers make a practice of traveling back and forth and sometimes they reap rich harvests—until they are detected. When this occurs, their names are posted in the smoking room and passengers are requested to avoid them. If this fails, the gambler is put in irons.

Two new ships have a gymnasium equipped with the latest electrical apparatus for exercise, electric horses and camels to ride, and instruments to pound the body and make up for the lack of exercise and overeating most passengers indulge in.

All holidays are observed, weekly concerts and divine services on Sunday are held on the English boats, and mock trials and other diversions are devised for the pleasure of the travelers. The Atlantic Transport Line makes a point of its large staterooms, with iron bedsteads instead of bunks, and the newer American line boats their splendid artificial ventilation. And so you might go on naming the thousand and one attractions which the steamship lines employ to draw passengers their way.

The German captains are much more sociable than those of the English lines. One going up to an American lately, two or three days out, shook hands with him, saying:—"You are Mr. —— because you are the only man on the boat I don't know." Nothing of this sort happens on English ships. The last night of the voyage brings the "captain's dinner" on the German ships, when, if it is clear and not too warm, the passengers dance to the tune of the band, while the captain acts as host. All the various diversions of the evening culminate in a pretty scene when, the lights being out, the steward appears with moulds of ice cream from which candles stand forth until an array of dim lights cast weird shadows over the company, hushed with expectancy marooned in a swaying ocean of vague darkness.

THE STEERAGE PASSENGERS

One of the most important persons in a steamship line is the manager of the Steerage Department. His agents know the haunts

of transient American citizens like a book, and if you are much in the East Side you come across many dingy offices with the names of great steamship lines in the windows. Food, good accomodations and cheap rates are the inducements held out. One hears often that foreign agents tell monstrous lies about the riches of the United States, to encourage foreigners to come to their shores. The severe penalties imposed by foreign governments, however, for inciting immigration, is fair proof of the fallacy of these reports. None of the great steamship lines is patronized exclusively by immigrants of the various foreign countries, although the Italians rather favor the German lines. And a great deal of attention is paid to steerage passengers. Although lines may not invite immigration by direct appeal, everything except such appeal is made to attract such people. Central points are established in foreign countries where the immigrants included in an agency district may gather. Italians, Frenchmen and Spaniards are assembled at Genoa; Huns, Slavs and Germans at Bremen, or Hamburg; Belgians, Hollanders and others at Antwerp, and so on. Steamship lines are taxed fifty cents for each immigrant, and the people who are denied admission to this country must be taken back at the expense of the line that brought them here. On board ship the immigrants fare well. The food is fairly wholesome and plentiful. The passengers sleep in long rows of bunks in a compartment which is as clean, well ventilated and cool as possible. Each morning the captain inspects the steerage, and complaints are considered from the humblest alien. They eat food prepared in the ship's galley, from long tables which are set up at meal time. Along with the immigrants are many world wanderers in fair circumstances, who cross and recross as third-class passengers. The cost of steerage passage ranges from $20 to $30 according to the vessel. An idea of the steerage traffic of the best known big lines will be gained by a glance at the following figures, which show accurately the number of steerage passengers brought here in 1901:

North German Lloyd Line	101,384
Hamburg-American	78,560
French Line	35,961
White Star	30,483
Red Star	32,703
American	12,511

HANDLING FREIGHT FOR THE WORLD

As for freight, the swift express ships carry small quantities of perishable goods and often gold and bullion, but the great freight carriers like the *Barbarossa* and the *Celtic* and the newer type represented by the *Moltke* and *Bremen*, carry the bulk of the freight. When a shipper wishes to send goods abroad, he comes as a rule to the freight manager, but sometimes shippers make special contracts abroad with the owners of the line. The manager must be intimately acquainted with the goods which are shipped, and he must know to a dot the weight and measurement of the cargo. He must also know the shipping season of the various freights, and he must make up his cargoes in such a way that the carrying capacity is utilized in the most economical way. The freight rates from Europe to this country are generally fixed rates, but freight rates from the United States to foreign ports vary. A shipper either makes his contract with the line or its agents, or through freight brokers. The receiving clerks on the pier then inspect the goods, and if they are what the contract calls for they issue a receipt. If the bulk in weight is greater than was stated in the contract, the goods are not allowed on the vessel. The shipper exchanges this receipt at the office of the steamship company for a regular bill of lading.

The big freighters load at four different hatchways at the same time. At each hatch there is a steam hoisting apparatus and a separate gang of men working under the direction of a stevedore. About six gangs of twenty-five men each and about twelve foremen and dock clerks are employed. As many men are employed as can work to advantage. Street cars, completely boxed, steam launches enclosed in cases, and heavy machinery are lifted from the dock, swung over the open hatchway and lowered to the cavernous depths as easily as though they weighed a hundred pounds instead of twelve tons. The weight of the goods when they are stored must be so arranged that the vessel stands on an even keel. Then the cargo must be stowed so that it will not shift with the rolling and plunging of the ship in a heavy sea. Precaution is particularly necessary on an ocean racer. Every package is fitted into place so that the cargo will be a solid part of

the vessel, and serve to ballast her to the best advantage.

MANY DEVICES FOR SAFETY

And safety has kept pace with increased speed. Double screws and shafts, bulkheads, watertight compartments and double bottoms bid defiance to the dangers of the sea. By the bulkhead system, perfected first on the old Guion liner *Arizona*, vessels are divided by twenty or thirty transverse bulkheads into as many watertight compartments. These bulkheads run from the keel to the saloon deck, about twenty feet above the water line. The first bulkhead rises a few feet from the bow—thus a head-on collision with an iceberg or a derelict results only in the filling of the forward compartment. The steerage includes several compartments, as do also the saloons, engine rooms and the rest back to the stern. A collision crushing in the side of the vessel in the region of the engine room would, of course, fill the engine room compartment with water, but that would not suffice to sink the vessel, unless the bulkhead doors of the other compartments were left open. Even if the collision occurred at the bulkhead dividing two compartments, and both were thus flooded, the vessel would still float, provided the other bulkheads were closed. The new Doerr electric and hydraulic bulkhead system, whereby the bulkhead doors are closed from the bridge by means of a lever, has been adopted by the North German Line. By it, in two minutes, every compartment door may be automatically closed from the bridge and the ship rendered watertight. The possibility of a broken shaft or propeller still remains, but in twin screw vessels there is slight danger of helpless drifting, as was the case with the Cunarder *Umbria*, which broke her shafting in mid-ocean a few years ago. With one propeller knocked to pieces by contact with a derelict, or a shaft broken, another propeller and another shaft remain to drive the vessel on her way, as was done in the case of the *Fuerst Bismarck* in August of the present year. Safety at sea is, in large measure, an accomplished fact. By comparing the statistics of accidents and loss of life in travel ocean with travel by rail one will appreciate much safer travel at sea is than travel on

TWO METHODS OF INSURANCE

All the varied property of a steamship line is insured partly in marine insurance companies and partly by the line itself. Until recently the North German Lloyd had a regular insurance department of its own. The valuation of all vessels, pier sheds and other property was fixed, and each year a sum representing what would be the premium if the insurance were carried in a regular company was placed in the insurance fund. Since the line has bought out so many new vessels, however, a large part of their risks has been placed with English, German and American insurance companies. All lines may now be said to operate on that principle—part self-insurance and part outside. No single insurance company will carry a risk against the loss of a large Atlantic steamship. One company will underwrite the insurance for total loss, but immediately after the company sets out and reinsures the risk in several companies. Thus the total loss of a steamship involves, perhaps, a dozen companies. Premiums are remarkably low; for the risk on a great ocean liner is not assumed to be hazardous.

MANAGING THE SHIP ITSELF

On board these combined hotels and warehouses afloat are a multitude of activities. The ship's company of the *Wilhelm der Grosse* numbers 550 men. This includes the captain, first officer, three second officers, two fourth officers, chief engineer, first assistant engineer, two second assistant engineers, six fourth assistant engineers, two surgeons, purser, three assistant pursers, storekeeper, chief steward and a corps of assistants, chief cook and nine assistant cooks, baggagemaster, quartermaster, assistant quartermaster and fifty-five assistants, boatswain and his mate, seamen, stokers, firemen—quite a community. The captain controls everything, and is always on the bridge in stress of storm or other emergency. The first, second and third officers have their stated hours for standing watch on the bridge and directing the movements of the vessel. The fourth and fifth officers are, as a rule, quite young, and they assist in the watches, direct in a general way the tasks of the sailors, such as lowering the boats and supervising the work about ship, relieving and assisting their superior officers, and attending

to hundreds of other matters. The boatswain and his mate have direct charge of the crew, their work corresponding to the work of a foreman of a gang of laborers. From fifteen to twenty-five sailors are on duty in each of the three daily watches. In each watch a quartermaster holds the wheel. Still another quartermaster is near at hand ready to manipulate the hand-steering gear, in case the steam apparatus breaks down. There are few idle moments for the sailors, for their natural enemy, the boatswain, keeps them going about on odd jobs from holy-stoning the decks to painting life-boats. The captain of a large steamship, when his responsibility is considered, is the poorest paid man in the world. The highest salary possible does not exceed $2,500, and from the captain it goes down to the able seamen, who receive $20 or $25 a month. Sometimes the captain rents his cabin, or he gets a commission on the number of his passengers. But it is a poor calling from a financial standpoint—that of a ship's master.

IN THE ENGINE ROOM

The engine room is the wonderland of the great liner. Here the chief engineer is supreme and no one but the captain may bother him. Speed, quick time, broken records are only obtained by unceasing vigilance. In the largest liners the engineer force numbers over 200 men. This force is divided into two shifts. One or two engineers keep constant watch in each fire-room; and two or three are always on the platform of the engine room. These last named men must watch the warmth of the bearings, the condition of the shafts and rods, keep an eye on the throttles and the indicator showing the revolutions of the screws; they must watch the steam pressure and attend to hundreds of technical details. The chief engineer is one of the most competent, best educated and most interesting men in the world. He receives about $150 a month, and a bonus on all coal saved under that which is allowed him to maintain a certain average of speed. The stokeroom is the inferno of the vessel. A brief glance down there gives a picture of electric arc light rays, great gaping, lurid walls of fire, naked sweating figures, blue sulphurous flames, rising and falling shovels and flying buckets, that haunt one for life. But even here many new devices are reducing temperature and making labor less unpleasant.

THE TRUST AND THE RAILROADS

It has been said that the great railroads control the freight situation. As a rule, there is an understanding between the railroads and the steamship companies as regards the various rates. Any disagreement between a certain steamship line and a great railway would have but one result. A railroad might refuse to carry to this city all goods, merchandise or grain consigned to other seaports. Say the railroad would only carry over-sea freight to Philadelphia or Boston or Baltimore. The effect would be ruinous on lines leaving New York. This is the advantage of the new steamship trust, that it owns so many railroads, and is, therefore, in a position to adjust railroad freights to suit its steamships, or vice versa. It is said that the trust will put the tramp steamer out of business, but it will take years to accomplish such a result. The majority of these wandering craft are owned by English merchants. In dingy little offices in London and Liverpool the stout, conservative old shipping men pore over trade reports, and send the tramps where they will do the most good. If crops are good in this country this year, a huge fleet of tramps fly thither, without charter, and lie off Liberty Island, awaiting contract. Last year the crops were not good and there was scarcely a tramp in this port. They were all down in South America, where crops had been enormous.

Years of patient endeavor, of painstaking care, of skilful organization, of gigantic financial risks, infinite tact, judgment, diplomacy, devotion to the interests of passengers and shippers—all these elements and many more figure in the making and working of the successful steamship line. Rates must not be considered exorbitant, yet they may not be too low; records must be broken, yet there must be no accidents; things must be right. "Great steamship men are few: that is why there are so few of them," is an old adage in the British shipping circles, but these few and their thousands upon thousands of assistants are operating a business that strikes life from nearly every side—the most enormous, varied and picturesque business in the world.

"THE ORGANIZED CONSCIENCE OF THE RICH"

THE MANY-SIDED ACTIVITY OF THE NEW YORK CHAMBER OF COMMERCE—ITS CIVIC PRIDE AND PUBLIC SERVICE TO THE CITY, TO THE STATE, TO THE NATION AND TO THE WORLD —AN ORGANIZATION UNIQUE IN THE HISTORY OF COMMERCE

BY

FRANKLIN MATTHEWS

IT is held as a reproach, widespread in the land, that New York City lacks public spirit. Its citizens are too busy making money out of the rest of the country; its Wall Street millionaires have no souls; the place is crowded with a vast mass of non-English speaking foreigners; the city is not really American.

And yet when the horrors of fire or famine or flood smite with devastating force any part of the world, so great that numbers of the people suffer or die, the country instinctively turns to New York to see what the Chamber of Commerce intends to do for their relief. Relief is always sent from New York, and the Chamber of Commerce, formed for the purpose of advancing the trade of the city and of the State and of the Nation, and having upon its roll millionaires almost by the hundreds, invariably takes the lead in showing the most humane form of public spirit by giving generously without regard to race or nationality. The best answer to the assertion that the rich of New York have no souls is to examine the records of the Chamber of Commerce in times of great calamity. When the news came of Martinique's obliteration, so quickly was action taken that the President of the Chamber, Mr. Morris K. Jesup, even before a meeting was called, purchased on his own responsibility a cargo of supplies already on the way to that port but consigned to men who had been killed.

Indeed, there seems to be a general impression that the chief mission of the Chamber is to aid suffering humanity in times of great upheavals of nature, and to give a dinner once a year, where, like the Lord Mayor's banquet in London, the National Administration may declare, through some Cabinet officer, its purpose and commercial policy. But these are mere incidents in the routine work of this great institution, which has been described aptly as the "organized conscience of the rich men of New York."

The twenty original incorporators of the Chamber declared on March 13, 1770, that its great object was "the enlargement of trade." From that time to this its work has been both beneficent and patriotic. It has always opposed war, but when war has come it has upheld the Nation's cause. When war has ended, instantly it has applied its influence and energy to binding up the wounds and to restoring commercial health. When Savannah surrendered in 1865 it sent $35,000 to the city at once for the relief of the destitute. In the same year it sent $20,000 to the hungry of East Tennessee. When Richmond fell $15,000 was forwarded for the poor of that city. It spent $2,000 for medals for the valiant garrisons of Forts Sumter and Pickens. It raised $25,000 for testimonials to the officers and crew of the *Kearsarge* for completing the work, when the *Alabama* was beaten, of driving privateers against the commerce of the United States from the high seas. It has raised funds for the relief of the widows of naval officers killed in battle. Its patriotism has always been of the practical kind.

Vast has been its work in public charity. In less than fifty years it has raised $2,800,000 for this work. Of this sum $1,044,000 was for the sufferers from the Chicago fire. As early as 1862 it began to send aid to those

in distress from great fires. It sent in that year $15,000 to Troy, New York. In 1866 it sent $106,000 to the sufferers from the fire in Portland, Maine. In 1901 it sent $25,000 to those suffering from the fire in Jacksonville, Florida.

In time of famine it sent $60,000 to North China, in 1889; $80,000 to Russia in 1892; $30,000 to Armenia in 1895; $10,000 to Crete in 1897; $10,000 to Cuba in 1897. It even braved probable public disfavor and sent $150,000 to Lancashire, England, for the hungry, when British sympathy was largely with the South during the Civil War. It sent $142,000 to France right after the Franco-Prussian War. It raised $100,000 for the victims of the Johnstown flood, and $121,000 when the tidal wave swept over Galveston. For the victims of yellow fever and cholera in various parts of the United States it has raised at sundry times more than $500,000. At the time of the Charleston earthquake $90,000 was raised, and for the recent sufferers from the West Indian volcanoes $42,000 was raised and expended quickly. By giving quickly it has given thrice.

Nevertheless, all this is only a small part of the work of the Chamber. To secure the advancement of public prosperity is its real work. To influence public opinion, especially in reference to law-making on taxation and kindred subjects, has been one of its great aims. A writer in summing up the purpose of the Chamber said twelve years ago: "It inevitably seeks the forms of civil and political government that most effectively conduce to the peace, thrift and happiness of citizens." That characterization is just as true to-day. Although the Chamber avoids participation in political questions as such, it has always dealt with two of the great political issues—sound finance and the tariff—but more in an academic than in a political sense. Twice has it engaged in the local political contests of New York city. Tammany Hall's enormities were responsible for this. The Chamber rose in its might at the time of the Tweed exposures, and early in the nineties helped to elect William L. Strong mayor. Otherwise its participation in politics has been on the broad ground of commercial advancement. Technically it abjures politics.

In one sense the Chamber of Commerce is like a club of leading merchants. It has a limited membership of 1,500 men who pay dues of $50 each a year and all of whom are allied with commerce. It does not encourage the presence of professional men on its roll of members. It has eleven honorary members, among whom are Carl Schurz, Thomas A. Edison and Hugh H. Hanna, and men like them who have contributed notably to the business prosperity of the nation in one way or another for twenty years. It has occupied an attractive suite of rooms in the Mutual Life Building till now, and the walls of these rooms were crowded to the last inch with portraits of the great men of commerce of New York and the Nation. These portraits comprise a marvelous collection. To one who can read aright they tell a story of what has been called the key of the commercial history of the United States. Nearly every man who has been great in trade or finance in this country has representation there. That unsatisfactory and almost objectionable phrase, "the best citizens," may even be used with full propriety of the membership past and present of the Chamber of Commerce. It is about to occupy a magnificent home, worthy alike of its career and purposes, built at a cost of $1,500,000. As a place where these representative men may meet and discuss what is best for the commerce of the city and country the Chamber may be called a club.

But it is more as a State and National institution or society, devoted to the high purpose of advancing material prosperity, than as a club of wealthy men, that its work is done. It is one of the oldest institutions of the country. It has two charters, one granted by George III in 1770, and the other granted by the New York Legislature on April 13, 1784, both documents agreeing as to the purposes of the organization. These charters give it the right "to carry into execution, encourage and promote, by just and lawful ways and means, such measures as will tend to promote and extend just and lawful commerce." Its great seal of solid silver, three inches in diameter and one inch thick, was carried to London by Isaac Low, the last Colonial president of the society and a sympathizer with British interests, but it was recovered from a sort of junk shop several years later and brought back and is in constant use.

The Chamber exercises its influence upon the body politic through half a dozen standing committees. These have to do with Finance and Currency, Commerce and the Revision of Laws, Internal Trade and Improvements, Harbors and Ships, Commercial Arbitration, State and Municipal Taxation. Mr. George Wilson, who for nearly fifty years has been its secretary and is still a comparatively young man, has had active charge of the business details of the organization, and what a host of memories of great men and great movements he has! I asked him recently what was the most impressive meeting of the Chamber of Commerce that he could recall. Without a moment's hesitation he replied: "The great meeting of the Chamber just after Fort Sumter was fired upon. Never in my life have I seen such a patriotic impulse, such evidence of national devotion. That meeting led to the great Union Square outdoor meeting which rallied the citizens of New York. As an outcome of it all it was possible for Secretary Chase to come to New York, and in the rooms of the Chamber at William and Cedar Streets to raise a loan of $30,000,000 when the Government was in sore need."

The routine work of this State and National institution centres largely in a meeting which is held once a month. Some man of national distinction frequently makes a formal address upon the commercial topics of the day, or some committee reports upon vital question of commercial interest. A large part of the daily work of the officers is the preparation and circulation of documents relating to these matters. The Chamber is an institution that produces something constantly, and that undoubtedly explains why its membership is always full and why it is considered a great honor to have one's name upon its roll.

From the beginning the Chamber has been a friend of the Erie Canal. In 1786 it first suggested the construction of that highway, and it coöperated with Dewitt Clinton in securing that boon to the commerce of New York, and it has watched faithfully over its maintenance ever since. It has gone further than this, for in February last the Chamber opted a report favoring the recommenda- n of Governor Odell that the State should id $80,000,000 in improving this impor- highway of trade. The committee that investigated the matter said that in its opinion the State could spend $80,000,000 upon improvements to the canal with less comparative sacrifice than was made when the canal was dug originally. The $80,000,000 would practically make a ship canal of this highway.

The Chamber has always championed an Isthmian canal project, and has left nothing undone in the way of instructing the people and their representatives as to the value of that project to American commerce. Another great work has been in upholding what it has always considered to be right in finance, —the maintenance of the gold standard. It has not regarded this financial matter so much a political as a moral question. It has believed that the passage of the act of March 14, 1900, providing for the maintenance of the gold standard, was incomplete because it failed to provide for making the silver currency as good as gold, except in a negative way. One result of this belief was the introduction of a bill at the last session of Congress to remedy this defect. The Chamber will not cease in its agitation for an improved monetary system until some of the existing glaring defects are corrected and until the money question ceases to be an object of political and even academic strife.

From the very first it has been a constant and consistent advocate of specific duties in tariff legislation. Solely as a commercial question, it has participated in the political side of the tariff question. Especially active has the Chamber been in the effort to secure reciprocal treaties with other countries. Indeed, it has always subjected our treaties to the closest scrutiny when commercial interests were involved. Against some of the reciprocal treaties it has protested on the ground that they were not really reciprocal. Since 1852, when the Chamber memorialized Congress for a reciprocal treaty with the Dominion of Canada, it has approved every measure really looking toward the advancement of reciprocal trade, and only last year it was most active in urging the adoption of the reciprocal treaties that were held up in the United States Senate. It was especially desirous that the treaty with France should be ratified.

On the question of reciprocity with Cuba

the Chamber was outspoken. There, if at any time, it represented the conscience of the rich. It was for justice and decency. It represented truly the voice of the people. It sent a memorial to Congress urging a fifty per cent. reduction of tariff rates on sugar and tobacco from Cuba, the staple crops of the island, and upon the prosperous condition of the trade in which articles the very life of Cuba depends. The utmost that the measure that passed the House of Representatives was willing to grant in this respect was a twenty per cent reduction in the tariff rates on sugar. The beet sugar interests, through influence in the Senate, outraged the country's sense of justice to Cuba. The people have spoken in emphatic terms of that blot upon our record, and it is to the credit of the Chamber of Commerce that it was one of the first to speak. In February of this year it sent its message asking Congress to do the right thing for Cuba, and it backed up this request by asserting that not only would such a measure save Cuba from distress, but that it would also "advance the commercial interests of the United States."

The Chamber has also taken a leading part in the agitation for a new Cabinet department to be known as the Department of Commerce and Industries. Resolutions looking to the creation of this Department were sent to Washington, and influence was brought to bear upon other commercial bodies throughout the land, so that there was a widespread demand for this department. The measure to secure it failed to pass at the last session of Congress and the agitation will continue.

One of the most persistent purposes of the Chamber has been to keep an eye upon the Legislature of New York. It has striven to relieve the commercial interests of the State and city from an undue burden of taxation. Rigorously has it used its influence to protect the savings bank deposits from reprisals at the hands of legislators. Its Committee on State and Municipal Taxation worked hard at the last session of the last Legislature, as the annual report issued in June last shows, for the passage of the Stranahan Mortgage Tax bill. That measure failed, but renewed efforts will be made next winter to secure its adoption. This committee also made a report on the per capita expense of municipal administration in New York, Berlin, Paris and London. That report showed that in 1900 the per capita expense of the city government was $29.09. The figures for the other cities were: London, $16.62; Paris, $23.25; Berlin, $21.70.

In every annual report of the Chamber there are published valuable statistics of the trade of the country in leading articles of commerce, such as sugar, tobacco, cotton, cheese and butter, tea, wines, coffee, leather, dry goods, etc. For instance, the latest report shows that the consumption of sugar in the United States in the year 1901 was the largest on record, aggregating more than 2,400,000 tons. The lowest prices of this staple were due to the fact that European countries produced more than 7,000,000 tons of beet sugar. There was an unprecedented yield of coffee in Brazil in 1901, and that fact caused the prices to drop until they were nearly the lowest on record. The tobacco crop, the figures show, was not as large as was expected; the exports for 1901 being 315,787,782 pounds as compared with 334,604,210 pounds in 1900. The cotton crop, this report shows, amounted to 10,400,000 bales, weighing 5,319,000,000 pounds, being an increase of nearly 1,000,000 bales over the previous year. The exports in petroleum were the largest in the history of that branch of trade, amounting to 957,319,566 gallons as compared with 879,911,324 gallons the previous year. The value of the exports of provisions in 1901 showed an increase of $13,000,000 over the previous year. All this, in a general way, shows some of the practical side of the work of the Chamber.

In the matter of improving the port of New York and of removing burdens from commerce the Chamber has been vigilant and outspoken. It has striven for the improvement of docks and the waterfront. It has favored the betterment of harbor channels in the way of lighting and excavation. It has worked for improved streets in the metropolis for the sake of commerce. It has always contended for everything that would advance the interests of navigation. Its members are proud of it as the champion of the shipping interests of the country. Some idea of its work in this respect may be gained from its recommendations to Congress for the passage

of laws providing for the construction of harbors of refuge, for removing the limit of time in which a shipmaster calling in port for orders is required to name his destination, for a trial of the shipping bounty act, for reforms in the customs service of various kinds, for simplifications of statutes relating to storage in bonded warehouses, for disinfections at foreign ports, for reform in the exaction of port charges. It has always asked for the removal, so far as possible, of dangers to navigation on the high seas. It has favored the improvement of maritime codes and international shipping rules.

On broad questions of internal affairs it has worked in harmony with the Inter-State Commerce Commission; it has taken advanced ground upon the question of bankruptcy laws, sales for future delivery, adulteration of articles of trade, laws relating to merchandise marks, irrigation of arid lands, the preservation of forests, freedom of public schools from religious encroachments, the preparation of proper bills of lading, the unwise taxation of personal property, the collection of adequate census returns, and the like.

One most notable public service has it done for the city of New York in recent years: it has been the chief means (indirectly, it is true) of keeping the great underground system of rapid transit out of politics. But in another way, it may be said, the influence of the Chamber has been exerted successfully to keep that great work out of the clutches of Tammany Hall. The leading members of the Chamber of Commerce have always constituted a majority of the membership of the Rapid Transit Commission. Year by year these men fought for a position on this question. By legislative enactment they spent the city's money freely before they got that great public work in a place of safety from political tricksters. Every step was planned with the utmost care, and when the commission got ready to put its plans in operation no more wise and thorough public service was ever done for a community than was done by those men of the Chamber of Commerce and their helpful associates.

The Tammany Hall Corporation Counsel—as a last effort, it was thought by most citizens, to get some share for Tammany Hall in the [illegible]ction of the work—held up the contract for something like eighteen months; but if the delay was made for sinister purposes in the hope of bringing the commissioners to terms and causing them to deal with the irresponsible leaders of a discredited political organization, it failed completely. As a result, a municipal work is under way in the great metropolis of America, involving the expenditure of something like $40,000,000, free from the suspicion of fattening the private fortunes of political leaders whose only warrant for consideration is their power to blackmail. No Tammany leader's wealth has been increased in this case by exacted tribute, as undoubtedly it was planned there should be (it has been done in other cases), by simply giving unofficial permission to open the public streets to begin a public work. For this great devotion to public interests, and for the tremendous object lesson in showing that a vast public work can be carried on in an American municipality without enriching thieving politicians, the members of the Chamber of Commerce who have brought about this condition of affairs, solely from a sense of public duty and without any reward other than the approval of their own consciences and the regard of their fellow citizens, are entitled to the thanks of every one who hopes for improved conditions in American municipal life.

In other ways the Chamber also plays an active and direct part in the public affairs of the city and port of New York. It names three Commissioners of Pilots, appoints a Commissioner for the Licensing of Sailors' Boarding Houses and Hotels, selects three Trustees for the Nautical School of the Harbor of New York, held on the schoolship *St. Mary's*, has a representation on the Board of Trustees of the Sailors' Snug Harbor, and, in accordance with the law of April 24, 1874, has established a Court of Arbitration. This court is used for the settlement of commercial disputes where both sides consent to leave the matter to arbitration. Like its work on behalf of the freedom of the neutral flag and in lessening the discriminations against the Chinese, this work in arbitration has been of great public service.

Its leading members have also done another public service of great importance in the way of education. The New York University

recently put in operation a department relating to the study of commerce. Before that school could be started it was necessary for the rich men of New York, who favored the movement, to raise the money to provide for the expenses of the work. The University itself had no funds for such a purpose. The money was raised practically among the members of the Chamber of Commerce, and thus indirectly the Chamber itself participated in this worthy object and is entitled to a large part of the credit in establishing the new course of study which promises most excellent results.

It is the human equation that has contributed most to the success of the Chamber of Commerce, as in every other institution of consequence. No organization exercises an influence that does not reflect the individual aims and purposes of its leading members. The President of the Chamber, Mr. Morris K. Jesup, is known everywhere for his broad and liberal impulses and for his large gifts toward the advancement of science and institutions of public service. His gifts to the Museum of Natural History, his work in furthering Arctic exploration through Lieutenant Peary and others, and his generous charity, are known to all in spite of his desire to be as unostentatious as possible. Listen to this excerpt from the address of President Jesup on taking the chair at one of his recent elections to the high office he holds:

"We can't look too much at the good side of New York and what it is doing for humanity and for the world. We hear too much of the bad side from the pulpit and other sources. The evils of New York and its bad example are pictured too glaringly before us; but if we citizens and members of this Chamber could only see the good things going on here in New York every day, we should be more proud of the city than we are. There is scarcely a philanthropic enterprise started in New York but that some members of this Chamber are engaged in it."

IS A FIXED WAGE JUST?

BY

GEORGE MAXWELL

THOUGH the system of fixed wages is generally accepted as the most satisfactory basis yet evolved for determining the just portion of labor, yet, viewed from the moral standpoint, one must admit that it does not satisfy the real relationship of employee to employer; for it makes no attempt to justly apportion the net result of the combined efforts of both. It does not satisfy because it is not just, and it is not just because the producer has no real share or property interest in the article produced.

If we are to continue to deal with the wage question under the time-worn law of supply and demand, doubtless the prevailing system of "standard wages," with the frequent contentions on both sides and forced or arbitrated settlements upon a higher or a lower basis, will hold together for a season. It may meet the present situation moderately well and continue to furnish a working plan for the conduct of general business. If public opinion supports the contention that the rights of property are of supreme and the rights of man are of secondary importance; if the business world is willing to continue to suffer the losses resulting from the positive discontent of the producing class; if the trade-union continues to believe that justice to the producer can be attained solely through forcing capital to raise the standard scale, rather than by making the worker a proportionate sharer in the net result; and if enlightened labor is willing to accept a definite scale as a complete and just recognition of its contribution to the finished product; then we may proceed indefinitely on the present course—with its many bumps, occasional wrecks, and frequent settlements. But we are led to believe that this is not always to be.

There is no disputing the fact that the consolidation of capitalistic enterprises is a natural and a logical tendency, and that the

resulting concentration of power will continue. But those in control must realize that there is a higher power among men than the power of money—an irresistible force that abides in a universal determination to have justice at any cost. It may be unrecognized by the worker himself—this perhaps unconscious and unexpressed longing in his heart for a certain acknowledgment of his humanity that he knows not how to ask for and that will not and cannot be satisfied with fixed wages. While upon the surface it clearly appears that he is simply contending for an increased wage, and though he may be able now to perceive no other way of securing that justice except in a higher wage-scale, it still remains that, in his heart, the struggle is made not so much for more wages as for justice—as he understands it.

And how precious a thing is that inborn spirit of justice, and how early in life it manifests itself!

I know a little girl of ten who recently received a dollar to buy a coveted pair of new "sneakers." She is a bright little maid with a keen eye for business. In the quaint New England village where she is spending the summer the typical general store is kept by an elderly gentleman who has had the advantage of threescore years of trading in a community where close bargaining is not an unknown diversion. The child quickly found at the shoe counter the style of "sneakers" that exactly suited her fancy, and after selecting a pair of proper size, she said that she would take them. Turning quickly upon the venerable merchant, she inquired the price. "Wal," drawled this post-graduate of shrewdness, "them-sneakers-is-wuth-fifty-cents,-but-you-may-have-them-for-forty-five." "No, sir," instantly responded my little friend; "if they are *worth* fifty cents I will pay that for them—and not a penny less. Here is my dollar. Give me fifty cents change, please; and don't you dare to give me fifty-five." "Thank 'e," meekly replied the old man. And she was right. That spirit of justice would not permit this little unsophisticated girl to make the purchase upon any other terms. If the sneakers were "wuth fifty cents" she would pay that for them. She likes a bargain; but she loves justice.

There can be no doubt that, so long as the ions between the two forces of capital and labor continue, voluntary arbitration furnishes the best-known means for securing adjustments—and a living wage. And yet the mere fact that arbitration is needed, where harmony should naturally reign, proves in itself that the fundamental basis is out of plumb, is wrong. Arbitration may secure a working truce, and, just so long as the scale of wages is treated by either side upon the basis of supply and demand, just so long will it be necessary to threaten, or to fight, and to arbitrate.

But who can justly define and set the earnings of his fellow man? What moral law jusifies the placing of a fixed price upon any kind of human energy? What tribunal can justly proclaim that a certain definite sum is the portion of labor and that all else and beyond is the property of capital? What controlling official in a financial, industrial or transportation enterprise is content with his bare salary? What set scale, however high, can satisfy a man?

It may easily be that, in individual instances, the wage-earner is getting even more than his just due. But in such a case the worker is not receiving justice any more than he who receives much less than that to which he is entitled. It is not especially more that he should have—but justice. Though with the risk of receiving even less, surely one would be happier as a man, more content as a worker and more efficient as a producer could he be fully assured of a just participation in the final result rather than a predetermined wage based upon a fixed scale that must necessarily limit his earnings to a general average.

While we must have great respect for the benefits accomplished by the trade-unions and acknowledge that the force of combined capital must, under prevailing conditions, be met with the strength of organized labor, yet we must also realize that the classification method of the trade-union, with its uniform scale and its collective bargain, savors of paternalism and tends to paralyze individual effort. It stunts mental growth and weakens that spirit of personal responsibility so essential for the development of moral health and physical vigor. Nor does that system secure or particularly encourage a spirit of partnership between the two

forces. It makes always for enlarging the share of labor as distinguished from strict justice.

The system that frequently obtains, where the settlement with the wage-earner is based upon "piece-work," may have the appearance of fairness; yet it does not at all meet the situation. Truly it keeps up the pace of the sturdy worker and drops out the sluggard and the weakling. But seldom if ever does it yield more than a living wage. The standard is quickly made to conform to the physical ability to produce, and so—to all practical purposes—it too becomes fixed wages. And there is in this form, as well as in all other adjustments of fixed wages, a refusal to recognize the worker as a partner in the enterprise. There is a disregard of the positive charm that one feels in an opportunity to earn and receive something different and more satisfying than a fixed compensation. There is a failure to reach justice as represented by a fair division of the net profit; and there is always absent the coveted acknowledgment of the personal value of the wage-earner, viewed as a contributor to the finished, marketed and delivered product.

Nor is this craving—beyond a fixed money recompense—for a proper recognition of one's contribution of energy or thought to the finished product confined to the laboring man or the artisan. It is universal, and pervades the realms of science and letters. For instance: an eminent surgeon who stood foremost in his profession was called upon for a treatise upon a certain popular disease, and its remedy. Being much pressed with the daily and more profitable demands upon his time, he gave to one of his assistants, a brilliant young surgeon, the task of preparing the main part of the article. This assistant wrote the desired paper without unusual effort. In the course of a few days it was completed in admirable form and handed to this eminent surgeon, who expressed himself well pleased with the work. He then added certain deductions and suggestions without in any way altering the original paper, and, after sending his assistant a liberal fee, published the entire article under his own name without so much as mentioning the man who had written the greater part of it. Of course, the young surgeon may have received the full market value in money for the contribution which he had made; but will any one claim that he was treated justly? Had he been paid ten times the amount in money there would still have been something lacking. He had received a fixed sum for a given amount of energy and thought; but he was denied that which was still more precious—the inherent right to a recognized partnership in the product of both. He had not received justice.

Voluntary contributions, that may be discontinued by the employer at will, count for little. They create no abiding happiness, but rather hold the employee in constant fear of a curtailment of his income, and so fail to secure his increased loyalty or nourish his affections for the employer. It is not a present of money or a gift of any sort that the worker craves. Such a distribution soon comes to be counted upon and the adjustment to the new order is complete. It thus becomes fixed wages, and, becoming fixed wages, it loses its stimulating power.

And so it is not only the walking delegate that seeks recognition. It is the scientist, the man of letters, the salesman, the clerk, as well as the laborer and the artisan. A growing intelligence will eventually demand and discover some more reasonable, just and profitable way of adjusting the relationship between the two forces—something that will turn every worker into a pace-maker. Possibly this may come by extending the community-of-interest idea so as to include the community, or through the adoption of some just plan of distribution that shall harmonize the now conflicting interests as well as develop the individual, stimulate mental and physical activity, and make the lowliest contributor of labor a sharer in the result.

For there is something nearer and dearer to the heart of every man than even his living wage,—a righteous craving to be recognized as a contributor to the success of the business. This irresistible desire to receive something richer than the fixed money-wage must inspire renewed faith in the continual elevation of society. It is this veritable heart-throb that gives indestructible vitality to the demand of all producers for a righteous recognition and a place on a higher plane than fixed wages make possible. It is justice that all are craving, and not a higher wage.

A DAY'S WORK IN A NEW YORK PUBLIC SCHOOL

SOME OF THE ORDINARY AND EXTRAORDINARY OCCURRENCES OF A TYPICAL SESSION IN ANY ONE OF THE CITY GRAMMAR SCHOOLS—GRAVE AND GAY OCCURRENCES THAT ARE ALL PICTURESQUE AND THAT FILL UP THE INTERESTING LIFE OF A TEACHER

BY

WILLIAM McANDREW

PRINCIPAL OF THE GIRLS' TECHNICAL HIGH SCHOOL, NEW YORK

ILLUSTRATED WITH PHOTOGRAPHS BY FLORENCE MAYNARD

SOME very wrong-minded person long ago spread a report that teaching school was humdrum. Unthinking people have believed it ever since. Dickens and other story-tellers have repeated the falsehood so skilfully and with such wide publicity that it is not uncommon to find, even among teachers themselves, a notion that school-keeping is dull, the master a bore, and the teacher a monotonous-minded maiden deserving only pity. This is a curiously mistaken idea.

Of all the interesting things in the world, children are the most universally attractive. So various, so surprising, so picturesque, so fascinating, so naturally merry, and, to the onlooker, so suggestive of happy experiences of one's own past are the personalities sent to school that it is only an unnatural and wrong-headed judgment that fails to see more attractions than drawbacks in teaching. Who would not envy a schoolmaster his opportunities of enjoyment and of service with a family of boys and girls numbering from twelve hundred to three thousand?

Among the articles on business interests presented by this magazine, what is more worthy of extended notice than the great industry that has branches in every city, town and hamlet of our country, that is capitalized at millions of dollars, that handles the most precious raw material conceivable, and delivers the most valuable finished product known?

Miss Maynard's photographs of public school life tell their own story. The launching of a boy is a great event in family history. It has been talked of for many a month before the important event occurs. Though he shall soon develop some mysterious sensitiveness about wearing his school satchel, the young man is extremely proud of it on the first day. It is in his eyes a badge of business. He is no longer a baby, but a boy. Perhaps the recognition of this fact makes what is so glad an occasion to him a curious mixture of satisfaction and sadness to the mother, especially to the young mother.

However great an event coming to school for the first time may be, there is a singular lack of formality in the daily entrance of the mass of underdone humanity that presses against the doors at the opening every morning. I would like to show to Shakespeare Miss Maynard's picture of the opening of the gates. The whining schoolboy creeping like a snail unwillingly to school is singularly absent. Such pushing, such noise, such eagerness to be first, no one knows what for, make the old descriptions of school-going seem paradoxical.

Then comes the trilling of electric bells and the day's work opens. The street that just before was a forum of young humanity vociferously discussing weighty affairs of their state now resumes its wonted appearance, except for the few scattered late-comers compensating for early morning slowness by spurts of most frantic haste. They gain their places puffing and perspiring. School has begun.

"Now music rises from all growing things." Three thousand throats do service to the cause of patriotism. Shrill little trebles, very new

and fresh, basses not yet sure of the dignity of a changed register, besides all the voices between, unite to shout out the national anthem, or some other song required by law. The school rises to its feet. Every hand comes to the position of salute and then extends upward and outward towards the banner while the voices declare in unison:—

"I pledge allegiance to my Flag."

Then comes a short medley of various things: current news or literary productions, more music, and then the formal work of instruction and study.

A pretty morning ceremony is the procession of candidates to the office of the principal for daily commendation—one or two children from each room, bearing their trophies of penmanship or ciphering with them. Each has his card of introduction, properly endorsed, accrediting him to the court of the Great Potentate. It reads:—

> TO THE PRINCIPAL. *Sept. 30, 1902.*
> This will introduce to you
> *Johnny Johnson* From Room *32*
> whom I recommend for compliment for
> *great improvement in behaving himself.*
> *Mary Potter*
> Teacher.

This string of proud and happy youngsters is a triumphal procession worth looking at. No conquered enemies, no disappointed rivals line their path. Their laurels are bloodless, even tearless, for these are not little prigs selected as the best of all the class, but such as have done well enough to be officially told so, it may be for effort, it may be for success, it may be for improvement.

The effect upon the teacher who must commend these delegates every morning with discrimination and cordiality is not to be sniffed at. Even to be compelled once in twenty-four hours to bestow approval upon effort, to glance at the card, and with memory thus fortified, to call the happy Thomas by his name, to see his face blossom into smiling——this must involve a reflex action on the principal that makes him more fit for the duties of the day.

For there are weeds in the flower-bed which the head gardener may not ignore. All the seeds of crime are in this soil: Deceit, cheating, lying, stealing, vulgarity, impurity and all the long sad list of sins that mar our mortal state are here in a nascent form. The schoolmaster must serve as judge and jury over faults that the outside world thinks trivial, yet that are crimes against the society in which they are committed. He has not only the reputation of his institution to protect, but the positive moral education of his charges to secure.

Discipline for moral delinquencies is the one hard thing in teaching that seems necessarily disagreeable and forever possible. The silver lining of this cloud is the faith of ultimate benefit from such discipline and the relative fewness of the occasions that call for it. For, like men, most children are clean and honest most of the time.

The variety of occurrences in one day's school session is surprising. The special feature of the morning may be one of the arrivals of the much-desired supply-wagon with its never too complete stock of paper, pens and other necessaries furnished by the city. Contractors deliver these goods at the door. If a principal expects to save his stock from plunder he must at once organize a carrying brigade, like the West Indian coal heavers, to take his treasure to the storeroom.

A new light has been thrown upon the teaching of elementary schools by the introduction of the stereopticon. From a "show," set up with much ado and used as a special amusement and reward on rare occasions, the lantern has come to be adopted as a regular piece of apparatus of daily use. Mounted permanently on a solid standard, connected with the regular electric service, it is put in commission by the turn of a button and operated by any class teacher who has advanced her children to that part of the geography which she wishes to illustrate. What are probably the most complete sets of the most beautiful lantern slides in the world are issued to schools free of charge through the Department of Education of the State of New York. They cover the geography and natural history of the world from that called for in the lowest grades to the highest. Besides these pictures, many of the schools have sets purchased from funds presented to individual schools or earned by entertainments.

There is no limit to the benefits the public

[illegible] from private benefactions. [illegible] supply enough income [illegible] authorities to equip the [illegible] generous lover of children [illegible] safe, well-lighted [illegible] architecturally artistic, is the limit [illegible] ability. The inner walls must be [illegible] casts and pictures, if they come at [illegible] be the gift of some intelligent citizens [illegible] recognize the subtle and silent teaching [illegible] good art in the places where our [illegible] spend a good part of the most susceptible period of their lives.

Perhaps still more beneficent to the future citizenship of our municipality is the gift of playgrounds. The recess of the average city school is a pitiful mockery of the natural desires of young America. He may not throw the ball: he might break a window. He may not run: he might knock some one over upon the hard pavement. It is well for him not to shout: the echoing walls of the court carry the noise into the class-rooms where his fellows are trying to recite. He must stand about with hands in his pockets and think black thoughts of rebellion: these youngsters, whose fathers have forgotten what boys require. Half a block away is a great vacant plot with room to run and jump and a chance to halloo. Out of this, four times a day, the majesty of the law will chase him, until, hounded from lot to lot and street to street, he finds that everything official is against him and with all our devices for municipal conveniences we have no use for boys.

This is the chance for the real philanthropist. What more directly sensible expenditure for the public good than the purchase of a vacant lot to be put in charge of a level-headed keeper to supervise the games? An ounce of substitution will balance a pound of repression. Who could imagine a more fitting memorial to a departed loved one than a spot dedicated to children and to happy play?

The visits of the inspector from the Board of Health are regular occurrences in every city school. Children suspected of contagious disease are examined carefully and when their presence may endanger others they are excluded. Every day the Health Board sends [illegible]ery school a printed list of all houses [illegible] contagious disease exists. The principal must compare the addresses with his register and exclude residents of the specified houses.

By no means so infrequent a visitor is that bugaboo of schools, the parent. All school people are divisible into two classes: those who wonder why the parent doesn't come oftener, and those who wonder why she comes at all. Educational reformers, chiefly Superintendents, try to interest parents in visiting the schools: educational workers, mostly teachers, are cordially delighted to have parents stay at home. For madam dresses in her most impressive gown as a warrior would don his armor. She sallies forth to "worst" the teacher. On the judgment of a child encouraged to make as much of a tale as possible, the irate parent bases her condemnation of teacher, school and educational system. She proceeds to hold up the instruction of forty other boys while getting satisfaction for Johnny. She thinks she knows all about her boy and how he should be treated, but she doesn't. For school purposes a parent's ideas about her own children are usually worthless. It is as if one who owned a chafing-dish should give points on conducting an army kitchen. The woman who believes that because she has gone to school she knows how a school should be managed might as well assume to be a cook because she has eaten in a restaurant. To resist parents will always be a part of the work of a school teacher. As soon as one mamma learns that she only hinders matters by coming to school, along comes a fresh one, a mother of one child only, to take the vacant place. They must be smiled at and sympathized with; when they are gone the teacher will continue to do as before. For all this is in the day's work.

The next interruption is required by the law of the State. It is that formidable thing, the fire drill. Electric gongs sound their warning alarms. The youngsters prick up their ears expectantly. Five taps are heard. That means hats and coats. Another tap. The sound of a great tramping is heard. By the nearest stairways in double lines the three thousand silent soldiers, each on his very best behavior, march to the street and stand blinking in the bright sunlight, or with hair disheveled in the wind, while the principal sends messengers to the belated rooms in

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In that golden period
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DISMISSAL IN MILITARY STYLE

"SUPPLIES ARE HERE"

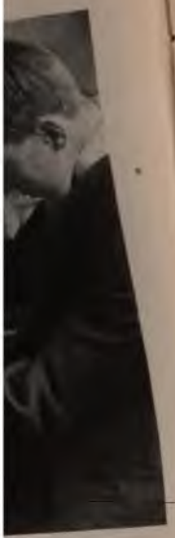
building. On each floor the drummers take their stations. Little Willie with his toy tympanum on the basement floor drumming a solemn march for the passing of the regiment of six-year-olds would cure the melancholy malady of the king's daughter described in the fairy-tale. Martial young Amazons pace the halls on the girls' side. The ranks all break as the outer door is reached, and boy nature bursts out into its natural language, the yell.

In that golden period of the day known to the boy as "after school," if the seeker for the

A MINUTE AFTER NINE

A TREATY OF PEACE

A POSE IN A DRAWING CLASS



ROAT

STAYING AFTER SC

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PLAYING ON PRIVATE GROUNDS PROHIBITED

disembowelling old magazines to sort, trim and mount the illustrations for use in the classes. Down in the assembly hall a fervid youth, before a single patient teacher, is declaring the same old *suppressio veri*, "I came to bury Cæsar, not to praise him." Here and there throughout the building the late-staying teacher is decorating lesson papers

A "PLAYGROUND"
you musn't throw a ball; you musn't make a noise

A STITCH IN TIME

THE GEOGRAPHY CLUB CUTTING UP ILLUSTRATED MAGAZINES

A FIRE DRILL ON THE GIRLS' SIDE

with red and blue X's. At length it is all over but the sweeping by the cleaners, which is not all over by any means, but only in places. Then come certain persons with bags and gather up all the paper evidences of errors —arithmetical, geographical and all sorts. Like Pilgrim with his pack of sins they pass from room to room until the day is ended.

Keeping school is the most satisfactory business in the world. Despite the occasional unpleasantnesses, it is the most enjoyable. Its opportunities for real service, for satisfactory friendships, and for close touch with important human interests are excelled by no calling whatever. If teachers are anywhere unhappy it is the public's fault, for the nature of their occupation, while exhausting, has intrinsic power of refreshment. Most teachers enjoy the teaching part of their duties; most people love companionship with children.

If Americans will more and more attempt to make the work of teaching attractive to teachers we shall secure in this country without doubt what not a few people now think we have—the most effective and the most agreeable schools in the world.

SALUTING THE FLAG

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obtain the manifests of alien

WAITING IN

JUST FROM HOLLAND

A POLISH WOMAN

the aliens as soon as their steamer has been passed at quarantine. Inspectors go aboard from the revenue cutters down the bay and obtain the manifests of alien passengers, which the steamship companies must supply. These manifests must show:

Full name—age—sex—whether married or single—calling or occupation—whether able

WAITING IN ONE OF THE RAILWAY DETENTION ROOMS

to read or write—nationality—last residence—seaport for landing in the United States—final destination in the United States—whether having a ticket through to such destination—whether the immigrant has paid his own passage, or whether it has been paid by other persons, or by any corporation, society, municipality or government—whether in possession of money, and if so, whether upward of $30, and how much, if $30 or less—whether going to join a relative, and if so, what relative and his name and address—whether ever before in the United States, and if so, when and where—whether ever in prison or almshouse, or supported by charity—whether a polygamist—whether under contract, expressed or implied, to perform labor in the United States—the immigrant's condition of health, mentally and physically, and whether deformed or crippled; and if so, from what cause. It is a searching census, indeed.

IN THE DETENTION PEN

Men who will be deported as not desirable

YOUNG IRISHMEN READY FOR POLITICS

RUSSIAN JEWS

A TYPICAL ITALIAN FAMILY

PEASANTS FROM NORWAY ON THE ROOF AWAITING DEPORTATION

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UNTIL HER FRIENDS ARRIVE

ON THEIR WAY TO WISCONSIN

COMING TO A NEW LAND IN HER OLD AGE

are kept in the big detention room downstairs until the railway agents take them to board trains to their final destinations. While on the island they are lodged by the Government and fed by the steamship companies.

My concern has been, not with the larger meaning, but with the unkempt particles of this slow and constantly moving glacier of humanity; from whence and why they came, how much money they brought with them, the amount and character of their baggage, how they procured employment, and how they were assimilated.

ODD BAGGAGE OF THE IMMIGRANTS

I welcomed Florio Vincenzo when he came over to become one of us. He had no doubts of the future for he wooed the Goddess of Good Fortune boldly. Florio is fourteen; he came from Palermo. He traveled light. When he opened his cheap paper valise, it was apparently empty, save for a pair of discredited and disreputable old shoes. Florio bowed, cap in hand, and his white teeth flashed as he smiled suavely:

ON ELLIS ISLAND
Polish women going from a barge to the immigration building

NG ON ELLIS ISLAND
rought in barges from the ships to the Island

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sage. The other shoe was stuffed with a soft, sticky and aggressively fragrant mass of Italian cheese. These articles and a sum of Italian money equivalent to about $1.80, and the clothes he stood in, formed the basis on which Florio expected to rear his fortune.

AWAITING THE BOAT TO NEW YORK

Pietro Viarilli was gray-ha
shouldered and weazened. H
come to make his fortune. His
consisted of one padlocked c
lined with paper and containin
cotton shirts, one neckerchief c
with blue flowers and edges, o
(soiled and worn), one waistcoat
woolen hose of gay design, one s
wear, one pint of olive oil and
peck of hard bread biscuits. Un
the list included a quart of Ves
the rich purple hue one may l
cafes in Naples. Carelessly Pie
his valise from his shoulder, and
his bottle, drenching his store
He and his companions had m
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The contents of the bags and
Scandinavians, English, Scotch
usually more diverse. These
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household ornaments of a senti
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During one month this spring
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year, yet seldom a piece is lost.

It is said that the old custo
can tell at a glance from the con
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DUTCH PEASANTS

Mother, son, daughter-in-law and grandchild come to make a home in the West

Pietro Viarilli was gray-haired, round-shouldered and weazened. He, too, had come to make his fortune. His impedimenta consisted of one padlocked canvas valise lined with paper and containing two striped cotton shirts, one neckerchief of yellow silk with blue flowers and edges, one black hat (soiled and worn), one waistcoat, two pairs of woolen hose of gay design, one suit of underwear, one pint of olive oil and about half a peck of hard bread biscuits. Until his arrival the list included a quart of Vesuvian wine of the rich purple hue one may buy in cheap cafes in Naples. Carelessly Pietro had slung his valise from his shoulder, and had smashed his bottle, drenching his store of biscuits. He and his companions had munched them greedily until the supply was exhausted.

The contents of the bags and boxes of the Scandinavians, English, Scotch and Irish are usually more diverse. These immigrants bring over articles of personal adornment or household ornaments of a sentimental interest. The Scandinavians bring more baggage than any others. Close behind come the English and the French. Roughly speaking, those from the North of Europe bring more personal effects than those from the South. The 2,000 immigrants who arrived on a Liverpool ship one morning this summer brought 1,185 pieces of checked baggage, exclusive of about 900 pieces of hand baggage. This is about two-thirds more than the same number of persons from Southern Europe would have brought. For this reason Hungarians, Slovaks, Greeks Sicilians, and other South-of-Europe peoples, are called "walkers" by baggage men.

During one month this spring 21,367 pieces of baggage were received at Ellis Island, examined and sent to various parts of the country, frail and poorly made, and awkwardly shaped, much of it unmarked and the rest scrawled over with undecipherable hieroglyphics. The Government makes no charge for storage, and the immigrant, if he chooses, may leave his trunk or box on the island for a year, yet seldom a piece is lost.

It is said that the old customs inspectors can tell at a glance from the contents of a bag just what part of Europe its owner has come from. The Italians bring over wine, fruits, oil or nuts; the English and the Scotch will have a piece of tweed or heavy cloth, and the Irish bring frieze. In the main, however, these immigrants come away from their homes to a strange country bringing less clothing and fewer personal effects than the average American workingman would drag out of a burning house, and chosen about as wisely.

MONEY BROUGHT BY THE IMMIGRANTS

At the examination the immigrants are asked to show their money. Some craftily fail to show it all; others willingly display their whole petty hoardings. The money is carefully counted, and, after a record has been taken, restored to them. Later, they are asked if they wish any money changed. Many refuse for fear of being cheated; others stop before the busy money-changers' booth at the end of the long examination room.

Last year the 388,931 immigrants showed $5,490,080, an average of $14.12. The French led all the others with an average of $39.37. The Hebrews stood at the foot of the list, bringing on an average $8.58. The Germans followed the French with an average of $31.14. The other nationalities stood in the list as follows:

Race	Average per capita.
Italians (northern)	$23.53
Bohemian and Moravian	22.78
Scandinavian	18.16
Irish	17.10
Armenian	15.75
Croatian and Dalmatian	15.54
Greek	15.10
Slovak	12.31
Magyar	10.96
Italian (Southern)	8.67

A pleasant-faced little man with trustful blue eyes stood before the desk one afternoon. His wife, a typical German woman, and three children formed a patient, waiting group behind him. The man wore a suit of "copperas jeans," stained and worn, top-boots, and the high peaked cap of the German peasant. He was fumbling through his pockets and in hidden recesses of his garments and producing money. Thalers, marks, Imperial treasury notes and gold pieces fell from his dirty fingers until a tidy little heap was lying on the counter.

Some of the immigrant officers looked on in amazement. The little German had seemed peculiarly unproductive soil for such a harvest—which amounted to over $600 to be converted into United States treasury notes. He grinned cheerfully when the neat pile of

crisp green bills was handed to him, and opening his shirt, stowed the roll where he could feel it next his body. But he was an exceptionally wealthy immigrant.

THE IMMIGRANTS AS CITIZENS

Getting a job is casual business with an immigrant. Each seems to find an opportunity. In a big gray stone building on the Battery is a low living room with white walls —bare save for rows of benches. In one corner is a railed-off desk space where sit two or three kindly faced old men. An iron railing running the length of the room separates capital from labor. On the benches are men waiting to be hired, of all sorts but alike in having no friends and no work. They slouch like habitual park loungers. A dull spirit of lethargy hangs over the room. The waiting peasants read dirty scraps of newspapers, or chat disconnectedly. Employers come in from time to time and tell the man behind the railing their needs. A fair-faced blond man in shirt sleeves, for example, came in one day and spoke briefly:—

"Who wants to work for a baker?" called the manager.

A young fellow stood up like a boy at school, came forward and talked with the employer in German. Then he went back and sat down. Another man looked up from his paper, spoke to the baker, and the two departed chatting like old friends.

From 1,000 to 1,500 persons find employment every month at this bureau, which is maintained by the German Society of the City of New York and the Irish Emigrant Society. Usually, however, the immigrants rely on friends or relatives for a start. Women seeking domestic service are more capricious than the men. They will not take a place outside of New York, not even in Brooklyn. They can get higher wages in New York than in any other place in the country.

Foreigners who have been in this country for less than one year are still subject to the immigration laws. If an immigrant becomes a public charge within twelve months, or applies to a public charity for relief, he is deported at the expense of the steamship company. The Outdoor Poor Bureau, maintained by the City of New York, handles about 2,000 such cases every year. The case of "Prince" Ranji T. Smilie was interesting. The "Prince" came into New York as an Eastern potentate with a retinue of swarthy retainers. He was really only a curry cook, and his coming had been cleverly exploited to advertise an Oriental restaurant in which the "Prince" was to cook and the retinue to become waiters. When the restaurant failed the waiters applied for relief and were sent to Ellis Island. Later they were deported. Some of the other cases have had interesting features: Ario Tokian, who described himself as a minister, thirty-one years of age, and did not know what ship he came on (not an uncommon occurrence), applied for relief in June. He had $5.00 when he landed nearly a year previously, and had $3.00 at the time he made his application. He had been refused on a similar application last September, whereupon he came back to the mainland and enlisted. He was discharged in June. In less than a month he was "broke." Another case was that of an English girl, an idiot and an epileptic, here a little more than a year. Her sister gave the unfortunate girl a good home, but circumstances recently made it impossible to support her longer. When application was made at the Outdoor Poor Bureau, it was found that she was a British subject and could not be committed permanently to an institution here, because she had been in this country more than a year. The British Consul refused to do anything. The final outcome of the matter is yet to be determined.

Roughly speaking, the North-of-Europe people make better citizens than those from the South of Europe. The better class go to the country and the worst to the cities. The Greeks are considered about the least desirable of all; the Italians from the southern portion of the peninsula also make poor citizens; but those from the northern part of Italy rank with the Swiss and other desirable nationalities. From 1821 to 1900, according to a recent Census Bulletin, over 19,000,000 immigrants landed in the United States. Germany sent 5,000,000; Ireland, 3,870,000; Great Britain, 3,026,000; Scandinavia, 1,246,000; Austria-Hungary (including Bohemia), 1,000,000; and Italy, 1,000,000. Once the stream came mainly from the North of Europe; now it comes chiefly from the South—from the undesirable countries.

These Greeks and the Southern Italians.

however, who live by selling fruit from the push carts in the city streets, earn considerable sums of money. An old Italian was detained at Ellis Island, preparatory to being deported because he had arrived here penniless. He sent for his son, a push-cart man, who had been in this country just one year. The boy (he was not more than twenty) brought his bank book showing deposits aggregating $250. This money represented the sum he had saved. He impressed upon the inspectors his ability to support his father, and the old man was admitted. The boy said his expenses were about $7.00 a week, and that he did not work for a padrone, but was an independent merchant.

Others follow different paths, and meet strange adventures. There is a man now honored in a Western State whom I shall call Karl Ritter. His older brother emigrated from the Black Forest to Wisconsin, where, laboring and living frugally, he acquired a prairie farm. At the age of eight, Karl came over with his name stitched on a square of white cloth on his breast. Kindly men cared for him till on a dreary winter day he reached Black Earth. When the day's work was over the station agent drove him over the dull prairie to his brother's place, and left him at the gate. He knocked, but getting no response, pushed desperately in. An old man and older woman, with sinister vicious faces, sitting there within the little farmhouse, told him his brother had gone on a journey. After a fortnight, beaten down with terrors, Karl ran away, and tramping up country, secured a place on a farm.

Arrived at manhood, and owner of a farm of his own, he was called one day to Black Earth, to learn that the man and woman he had met the day of his arrival had murdered his brother the day before and hidden the body in the cellar.

I have heard another odd tale. Three Scandinavian immigrant boys were each left a sixty-acre prairie farm by their father. Mons was a fisherman—the more he thought the plainer he saw his duty. To Nils he said:

"If I give you my farm, will you support me so that I can fish?"

Now Nils's 120 acres have increased to several thousand, and his stock is the finest in the country. Mons fishes all day in the lake, seldom catching anything, but content with his lot.

The final destination of the hordes pouring in can be set down but roughly, though the objective point of all the new-comers is a part of their record. Of the 138,000 arrivals in May and June of this year the distribution of the largest streams flowing in from Ellis Island was as follows:—

New York City and State	59,786
Pennsylvania	24,499
Illinois	8,445
Massachusetts	8,781
Connecticut	5,370
New Jersey	6,598
Ohio	4,861
Michigan	2,592
Minnesota	2,666

Of the Italians, not more than half come as permanent settlers. Of the 533,245 immigrants from Italy in 1901, 281,688 according to their own declaration sought temporary employment with the intention of returning to their old homes. Of these temporary immigrants there were 20,221. They have shown no tendency to settle in "colonies," but seek work wherever it may be had at tolerable wages. They are unlike the Swedes, Danes and Finns, who usually go directly to Western lumber camps and farms. Even these, like many of the immigrants, retain their old home customs years after settling, and outward-bound ships in the spring are filled with two and three-year immigrants going home on visits. As soon as the coal strike had begun in Pennsylvania, thousands of the strikers went back to Europe.

Homesickness drives certain of the foreign-born residents of New York to the Battery Park sea wall in the spring. On sunny mornings the long rows of benches facing the sea are full of men and women with bright head-dresses and gaily colored shawls, watching the ships come in. They chat animatedly and their manners are vivacious. Their talk is of home, of Tuscan hillsides, of the vineyards, of Cretan villages, and of the old Mediterranean cities. At regular intervals, when the boat from Ellis Island brings its load of newly arrived immigrants to the Barge Office, there is a rush of the homesick ones to the edge of the sea wall. The peasants on the boat wave their hats or brilliant neckerchiefs, and sometimes there is a call of greeting from across the water. Those who sit on the benches do not go to the park for the clean, cool air, but to satisfy demands that are pyschological.

MODERN LIFE AND DISEASE

BY

DR. FLOYD M. CRANDALL

IT goes without saying that the diseases of a people are modified from generation to generation by the changing habits of life, and never have such radical changes taken place as those in this country during the past half-century. From a community largely agricultural, with no large cities, population has trebled and the country has developed into a great commercial and manufacturing nation. Until the present generation of active workers, the chief task of the American people was the subduing of a continent. The American spent his life out-of-doors. On the frontier, which but yesterday disappeared, his life was rough and vigorous and one of constant physical endeavor. In the wake of the frontier were the long stretches of farms and rural communities, followed later by ranches and mining camps, all demanding the life of physical toil and open air labor. This work of continent-subduing began the day the Puritans landed in New England and the Cavaliers in Virginia, and did not cease until the Pacific had been reached. For two hundred and fifty years the young men and women of the country left the older regions of the East in yearly swarms, as bees leave the parent hive. Ever pushing Westward, they developed a race as hardy and vigorous as ever conquered savage or tilled the soil. Whoever says that the American is not a hardy race ignores facts.

In the meantime it had become a homogeneous people. Until 1820 immigration was slight and rarely exceeded 6,000 a year. During the next twenty-five years the average yearly immigration was little over 42,000. About 1847, however, a sudden change occurred and the yearly arrivals have since been counted by hundreds of thousands, at times approaching the half-million mark. These foreign peoples have penetrated into the remotest localities, carrying with them their own physical peculiarities and diseases.

Vast cities have come into existence, and today there are several in what was the frontier of fifty years ago that are larger than was the metropolis of that day. Overcrowding in the centres of population has become the rule. New York enjoys the bad distinction of possessing several of the densest populated acres in the world. An overcrowded population carries with it its own diseases, many either unknown in well-to-do private practice or existing in radically different form.

Overcrowding shows its effects in the well-to-do portions of large cities as well as in the tenement regions. The tendency to gregariousness is seen everywhere. The farmer leaves the farm and goes into the village, where his mode of life materially changes. It becomes less active if not actually sedentary. In this he illustrates the whole tendency of modern life among the better-to-do; the abandoning of physical labor and the adoption of callings which less and less require an out-of-door life and manual labor. The young, both men and women, seek the factory, the shop, the store, the business office, the professions; and the vast army of sedentary people becomes more vast year by year.

In the matter of adapting themselves to new conditions, the intelligent are sometimes but little in advance of the less intelligent masses. People are just beginning to learn that new conditions of life demand new methods of living, that sedentary lives within brick walls are producing effects which their grandfathers never experienced. Golf and tennis would have been absurdities in Colonial times, for the people did too much physical labor. The regular summer vacation or a tramp in the mountains was then unnecessary, for the people, even of the cities, walked or rode horseback most of the time. The men of old computed their business in thousands; they walked home at noon and ate dinner in a rational way. They required few vacations. The men of today compute their business in millions, thay eat that abomination known as a "quick lunch," and employ a labor-saving machine called a typewriter, which enables them to

write six times as many letters a day and thus load their mental faculties with six times as much business. Golf, tennis, and the bicycle, as well as outings and summer vacations, are expressions of a rational appreciation that the times have changed.

While there has been a more or less marked decrease in the frequency of almost every disease during the past twenty-five years, three classes of diseases have increased. These three classes are: degenerations, kidney disease, and cancer. Myocarditis, or degeneration of the heart muscle, has increased 150 per cent., while the population has increased but 50 per cent. Fatty degenerations and the various diseases of the arteries have also increased. Certain forms of Bright's disease have almost doubled. The power of alcohol in the form of malt liquors to produce degenerative changes is so well known to pathologists, that the conclusion is irresistible that the radical increase in these diseases comes largely from changed drinking habits. Conditions which result from the excessive use of distilled liquors have not increased. Cirrhosis of the liver, long known as "gin-drinker's liver," has relatively diminished. It is a disease which usually results from the excessive use of whiskey or brandy.

Since 1883, wit an increase in the population of about 50 per cent., the consumption of distilled spirits has increased but 30 per cent. If alcohol must be consumed, this tendency is undoubtedly favorable. But alcohol cannot be used continuously or in large amounts without detrimental results. Such results are often not recognized by the individual, but they occur and are beginning to affect the mortality records. It is impossible adequately to consider the diseases of a people without considering their drinking habits. Alcoholism is one of the most potent predisposing causes of nervous disease, both organic and functional, and it is, moreover, one of the most important predisposing causes of tuberculosis in both the individual and his offspring.

Between 1890 and 1900 the census shows a decrease in the following diseases, per 100,000 population: consumption from 245 to 190; diarrhœal diseases from 104 to 85; diphtheria from 70.1 to 35.4; typhoid fever from 46 to 33; membranous croup from 27 to 9; malarial fever from 19 to 8. An increase is shown in the following diseases: pneumonia from 186 to 191; heart disease from 121 to 134; kidney disease from 59 to 83; apoplexy from 49 to 66; cancer from 47 to 60; diabetes from 5 to 9.

Americans are not intemperate as a people. Statistics all show that their consumption of beer, wine and spirits is comparatively small. Bence-Jones says that with the exception of Canada, the consumption of alcohol in the United States is the smallest of all large nations. In 1890 the consumption of spirits per head was 1.17 gallons; in 1898 it had fallen to 0.92 of a gallon. While the use of beer had increased, it was but thirteen gallons per year per head. At the same time it was thirty-two gallons in Great Britain; twenty-seven gallons in all Germany; and fifty-six gallons in Bavaria. Schooling has recently presented statistics in which he shows that the use of wine and spirits in America is small, while the use of beer is not half that of Germany or England. He believes that the alertness and prompt energy of the American may be due in part to the relative abstinence from alcoholic drink.

While these figures are encouraging, they may also offer a warning. The immigration of beer-drinking peoples will result in the increased average consumption of beer in the future and will teach our people the same habit. And the brewing industries of this country need the close supervision they have in Germany. Much of the beer sold is so adulterated that it is unfit to put into the human body. Indeed, the same is true of much of the wine and brandy and even the whiskey sold in shops and saloons.

There are interesting contrasts in the comparative vitality of the sexes. Symonds, of New York, has recently made a study of the statistics obtained by life insurance companies. He confirms Farr's statement that women have a greater expectation of life at every age than men. During the first year female mortality is decidedly less than the male. Although more boys are born then girls, the great mortality among them reduces the proportionate number to a balance in favor of the females. When he is five years old a boy goes more out-of-doors. The girl in the meantime is kept in the house, and her mortality begins to rise and for a time passes that of the boy. The ten years between

forty-five and fifty-five is commonly regarded as a critical period for women. The actual increase in mortality, however, is not more than in previous years. On the other hand, the male mortality rises rapidly during this period. Between fifty-five and sixty the female mortality increases, but after this age the two rates run along in parallel lines, the female being always less than the male. Insurance tables also show that the largest number of deaths in men occur between the fortieth and fiftieth years of life; the next largest number between the fiftieth and sixtieth years. The large mortality rate at this period of life is the logical result of twenty-five years of fierce struggle for position, wealth, or power. The over-strenuous life, untempered by reason, cannot continue.

The diseases that have been brought most completely under control by improved treatment and sanitary measures are not those of middle life, unfortunately for the individual who has reached that age. Medical science has done much to make life safe up to the age of twenty. Mortality during the first five years is always high, but has been greatly lowered. During the second five years it suddenly diminishes. From ten to fifteen it is lower than at any other period of life. From fifteen to twenty it is but little higher. At twenty, however, the individual must begin the race with disease. At first he may meet with typhoid fever, tuberculosis, pneumonia, acute rheumatism, dyspepsia, and appendicitis. At forty-five he enters upon the period of greater tendency to heart disease, kidney disease, cancer, diabetes, alcoholism, digestive diseases, chronic rheumatism, and gout. A little later he enters the period of arterial diseases, apoplexy, and certain degenerative changes. He is constantly subject to the more destructive forces utilized by modern civilization. He may be electrocuted by live wires in the streets. He may be smothered in a fire-proof hotel or dashed to death in a falling elevator. He may be run over by bicycles, trolley cars, or automobiles.

great decrease has recently been shown in of the most prevalent diseases of large Infant mortality must always be large, s improvement shown during the last ears is extraordinary. During the first eight years after the organization of the Health Department of New York in 1866, it averaged 123.3 in each thousand children. This has steadily fallen to 64.8, a decrease of forty per cent. In 1866 the death rate for the contagious diseases, tuberculosis and diarrhœal diseases was 13.2 per thousand. It fell to but 11.8 for the ten years preceding 1883 and has since decreased to 6.4, a diminution of more than fifty per cent. These results are due to several causes, the most important probably being the diminished death rate from diphtheria due to the use of antitoxin, decrease in the occurrence of tuberculosis, and a marked decrease in the occurrence of summer diarrhœas of children. Much has been accomplished by improved methods of treatment, better methods in the care of children and of those suffering from contagious diseases, an improved milk supply, cleaner streets, and improved conditions in many of the tenement regions.

A study of life tables recently made by Roger S. Tracy, of the New York Board of Health, proves that a child born today has an expectation of nearly four years longer than the child born fifty years ago had. This increased expectation continues during the early years of childhood. It then gradually diminishes until at thirty-five it is virtually the same as that of the older period. After the age of forty or forty-five it becomes actually less, and a man at this age has a less expectation of life than did his grandfather.

These strange facts, it has been suggested, are due to two causes. First, the saving of child life undoubtedly throws forward into adult life a certain number of weakly individuals who succumb at middle age in the struggle for existence. This is probably counteracted, however, by the better condition in which the average modern child enters upon life, owing to wiser methods of care. Second, as to the expectation of life after middle age, the strain of existence is becoming constantly greater and has a visible effect. There is, besides, a growing tendency in many grades of society toward self-indulgence and neglect of methods of right living. "Few people," says Tracy, "have enough self-control to become centenarians." There are, moreover, certain contagious diseases which are becoming more prevalent in this country.

Two very important facts are brought out by the statistics just presented—the saving of life in its early stages and the sacrificing of life in its later stages. These must be due to well-defined causes. If so many infant lives may be saved, it is the duty of parents to make themselves familiar with the helpful methods. If the lives of the middle aged are being unnecessarily sacrificed, as they certainly are, it is the duty of the individual to know why and how to avoid the dangers.

When we consider the constant changes in which we live, the words of Spenser read almost like a prophecy:

"What man that sees the ever-whirling wheele
Of change, the which all mortall things doth sway,
But thereby doth find, and plainly feele,
How Mutability in them doth play
Her cruell sports to many mens' decay?"

THE LIFE OF A COAL MINER

THE SLOW PROGRESS OF THE BOY WHO STARTS IN A BREAKER, AND ENDS, AN OLD MAN IN THE BREAKER — AS TOLD BY A MAN WHO WAS ONCE A MINER

BY

REV. JOHN McDOWELL

"I'M twelve years old, goin' on thirteen," said the boy to the boss of the breaker. He didn't look more than ten, and he was only nine, but the law said he must be twelve to get a job. He was one of a multitude of the 16,000 youngsters of the mines, who, because miners' families are large and their pay comparatively small, start in the breaker before many boys have passed their primary schooling. From the time he enters the breaker there is a rule of progress that is almost always followed. Once a miner and twice a breaker-boy, the upward growth of boy to man, breaker-boy to miner, the descent from manhood to old age, from miner to breaker-boy: that is the rule. So the nine-year-old boy who is "twelve, goin' on thirteen," starts in the breaker. He gets from fifty to seventy cents for ten hours' work. He rises at 5:30 o'clock in the morning, puts on his working clothes, always soaked with dust, eats his breakfast, and by seven o'clock he has climbed the dark and dusty stairway to the screen-room where he works. He sits on a hard bench built across a long chute through which passes a steady stream of broken coal. From the coal he must pick the pieces of slate or rock.

It is not a hard life but it is confining and irksome. Sitting on his uncomfortable seat, bending constantly over the passing stream of coal, his hands soon become cut and scarred by the sharp pieces of slate and coal, while his finger nails are soon worn to the quick from contact with the iron chute. The air he breathes is saturated with the coal dust, and as a rule the breaker is fiercely hot in summer and intensely cold in winter. In many of the modern breakers, to be sure, steam heating pipes have been introduced into the screen-rooms, and fans have been placed in some breakers to carry away the dust. But however favorable the conditions, the boy's life is a hard one. Yet it is a consistent introduction to what is to follow.

The ambition of every breaker-boy is to enter the mines, and at the first opportunity he begins there as a door-boy,—never over fourteen years of age and often under. The work of the door-boy is not so laborious as that in the breaker, but is more monotonous. He must be on hand when the first trip of cars enter in the morning and remain until the last comes out at night. His duty is to open and shut the door as men and cars pass through the door, which controls and regulates the ventilation of the mine. He is alone

in the darkness and silence all day, save when other men and boys pass through his door. Not many of these boys care to read, and if they did it would be impossible in the dim light of their small lamp. Whittling and whistling are the boy's chief recreations. The door-boy's wages vary from sixty-five to seventy-five cents a day, and from this he provides his own lamp, cotton and oil.

Just as the breaker-boy wants to be a door-boy, the door-boy wants to be a driver. When the mules are kept in the mines, as they usually are, the driver-boy must go down the shaft in time to clean and harness his mule, bring him to the foot of the shaft and hitch him to a trip of empty cars before seven o'clock. This trip of cars varies from four to seven according to the number of miners. The driver takes the empty cars to the working places and returns them loaded to the foot of the shaft. They are then hoisted to the surface and conveyed to the breaker where the coal is cracked, sorted and cleaned and made ready for the market. There are today ten thousand drivers in the anthracite coal mines. These boys are in constant danger, not only of falling roof and exploding gas, but of being crushed by the cars. Their pay varies from $1.10 to $1.25, from which sum they supply their own lamps, cotton and oil.

When the driver reaches the age of twenty he becomes either a runner or a laborer in the mines, more frequently the latter. The runner is a conductor who collects the loaded cars and directs the driver. The laborer is employed by the miner, subject to the approval of the superintendent, to load the cars with the coal which has been blasted by the miner. As a rule he is paid so much per car, and a definite number of cars constitute a day's work—the number varying in different mines—averaging from five to seven, equaling from twelve to fifteen tons of coal. The laborer's work is often made difficult by the water and rock which are found in large quantities in coal veins.

There are 24,000 laborers in the anthracite mines of Pennsylvania, each one of whom is looking forward to becoming a miner in the technical sense of the word—that is, the employer of a laborer. To do this a laborer must have had two years' experience in prac- [illegible] mining and be ble to pass an examina- [illegible] ore the district board. If he passes he becomes a contractor as well as a laborer. He enters into a contract with the company to do a certain work at so much per car or yard. He blasts all the coal, and this involves judgment in locating the hole, skill in boring it, and care in preparing and determining the size of the shot. The number of blasts per day ranges from four to twelve, according to the size and character of the vein. He is responsible for the propping necessary to sustain the roof. According to the law of the State of Pennsylvania, the company operating the mine is obliged to furnish the miner the needed props, but the miner must place them at such places as the mine boss designates. Most of the boring is now done with hand-machines. The miner furnishes his own tools and supplies. His powder, squibs, paper, soap and oil he is compelled to buy from the company which employs him. His equipment includes the following tools—a hand-machine for drilling, drill, scraper, needle, blasting barrel, crowbar, pick, shovel, hammer, sledge, cartridge pin, oil can, tool-box and lamp. As a rule he rises at five A. M.; he enters the mine shortly after six. In some cases he is obliged to walk a mile or more underground to reach his place of work. He spends from eight to ten hours in the mine. Taking three hundred days as the possible working time in a year, the anthracite miner's daily pay for the past twenty years will not average over $1.60 a day, and that of the laborer not over $1.35.

His dangers are many. He may be crushed to death at any time by the falling roof, burned to death by the exploding of gas, or blown to pieces by a premature blast. So dangerous is his work that he is debarred from all ordinary life insurance. In no part of the country will you find so many crippled boys and broken-down men. During the last thirty years over 10,000 men and boys have been killed and 25,000 have been injured in this industry. Not many old men are found in the mines. The average age of those killed is 32.13.

It is an endless routine of dull plodding work from nine years until death—a sort of voluntary life imprisonment. Few escape. Once they begin, they continue to live out their commonplace, low-leveled existence, ignoring their daily danger, knowing nothing better.

RESTRICTION OF USTRY

PUT ON THE BUILDING TRADES
RIDGE DESERTED ON SATUR-
ES FOR AMBITIOUS WORKMEN
T EMPLOYERS COMPLAIN OF

BY

CUNNIFF

the results of his first-hand study of unions in manufacturing industries)

otographs by A.R.Dugmore

I heart while the long afternoon stole slowly
w away. Was this the swift-speeding dash of
e American industry?
le "Could you build more quickly?" I asked
e- of builders.
ge "Twice as quickly."
e "More cheaply?"
a "Twenty per cent."
g "Why don't you?"
r- "The labor unions."
y And in Connecticut factory towns em-
e ployers bitterly told me they were bound in
's union shackles.

AN EASY PLASTERING TASK

THE WATER BOY DOES NOT ALWAYS CHECK THE WORKER'S RHYTHM

SKILLED MARBLE WORKER HOLDING A SLAB FOR BORING

THE HOUSESMITHS' FOREMAN DOES NOT FORBID SMOKING

ONE OF THE ROUGHER TASKS OF THE BRICKLAYER: FIREPROOFING

Some of the trades are hired by the builders as the Fullers hire their masons; others work for sub-contractors. Foremen are union members, responsible not only to employers but to the union, too. And into the problems of this heterogeneous army, pulling all ways at once on a single structure, enter thirty unions.

"They put on brakes," said a builder, as we dodged a gang of workmen trundling some iron-work across the floor.

"How?" I asked.

"Well, I'd like to see the thing go through with a rush," he jerked out vigorously. "Put on two shifts! Let the lights flare up at night, and set things whooping! But it's drag, drag along. This union says they won't have two shifts, another says the

"But why not do like the print
jected; "have just a little more tha
for the night shift."

"There's a difference," he sa
work all the time; *we* don't. Nov
pose," he held up one finger, "ther
twelve thousand masons in New Yo
the shifts—twelve thousand more
he held up two fingers. "When t
all over—twenty-four thousand ou
No, it's better for us to have twelv
with fairly steady work than twic
loafing half the time. Besides, if
market, down goes the scale.
wages are a detriment already."

"What!" I ejaculated.

"Five twenty a day here! F
everywhere around! Soon's an up-S
layer hears what we're getting,
comes for the dollar twenty. Wh
sand or so begin to walk the street
hold our scale if the master mason
and double shifts would make it tw

But the silent, sleepy Saturday
on the bridge and in the buildings
a question of three hours' overtime
workmen are usually so eager as t
for the double pay, when only a
work.

"We don't allow overtime on
afternoon," said a union workman.

"Not at all?" I asked.

"A man might work," he repl
smile, "but we'd fine both him and
good bit more than they'd make."

"Why?" I persisted.

"Well," said he, pondering, "
want the holiday more than t
At first we used to take the ove
this held back the other trades fro
the afternoon. So to help the mo
quit, and we fixed it so that few
carry favor by working while the
off. This kind of thing is no good
stick together," and then his ey
"When the unions make a rule t
looks funny to you, bet on this: it
deep root in experience."

Restriction of output I found t
union policy to track, chiefly b
building unions officially discredit
where it is carried on it is tacit.
some trades it is true that the
are paid above the union scale: I

of iron-workers who get double; I met a stone-cutter whose piece-work wages made his shed-mates stare; paperhangers get all sorts of wages. "We set the minimum" say the unions. "Let a man get more if he can." And many do get more. In other trades, say bricklaying or floor-laying or plastering, all in actual practice get the same." And it's human nature," said a mason, "for a slower man to say 'Hold on, Bill; what's the rush?' On some jobs it couldn't happen; on some it could—depends on the men."

I have not the slightest doubt that work is slower under union domination than it would be if employers were free to hurry men as they pleased, despite the pride that union workmen often take in their speed and skill; but there are two sides, I found, to the matter.

"Before the unions," said a builder, "we paid the housesmiths from $2.25 to $4.00; now they all get $4.00—the poorer men evened up with the better."

"In other words," I questioned, "the better men are no worse off: the poorer men have gained?"

"And we've lost," he completed, "not only money, but the spur of better pay to goad the laggards."

This was the employers' point of view: here the unions'.

"Before the unions," said a union man, "employers hired rushers—corner masons for example, who made the men on the line keep up with the corners. The rushers were paid to rush. The men on the line made the best individual bargains they could. So in other trades. It was hustle from morning to night for the ordinary man to keep a job. He wore out young. When he couldn't keep up he was fired. That was the employers' ideal—well-paid rushers and a steady grist of fresh young men, poorly paid, to be ground up and thrown away. They do it now when they have the chance. I've seen it. I've grown old in my trade myself. Should I be thrown on the street because I can't keep pace with the youngsters,—or even have my wages cut? No, let the youngsters slow down; they'll live longer."

"If they're ambitious," I suggested.

"Well and good," he replied. "They can leave the trade; they can get to be foremen; they can save and be masters. Nothing holds

eliminated; builders must wait the
and pay the price of a certain grou
tractors, who exchange advantage
certain group of unions. I was
the plumbers in various cities have
arrangement.

"The consumer is surely the sucke
union man.

View this phase of industry as
out of the partnership idea betwe
and labor—not theoretical, but as
"for the preservation of the tra
cording to builders, it is a tighter
industry than simple union restri
due not so much to the unions a
ployers squeezing this advantage
union bargain.

Another detail of union practice
to my attention by the builder,
tested against such combined mon
is opposition to "lumping" or le
contracts—stopping, in short, th
of labor.

"The carpenters try to hog ev
complained a wood-worker I m
Building Trades' Council in Bo
wished to keep his trade distinct.

In New York, on the other han
dency ran the other way: the woo
the floor-layers, and other separa
are already "hogged" by the
The desire is to have large un
masons, who once included stone-m
plasterers, object to further sub
they wish to keep in a single trade
of fire-proof brick and equally th
glazed brick for corridor walls—
coarse, the other neat and careful.
quence is that a builder may not
contracts for different tasks in b
and carpentering. It would be c
a builder to sub-let the floor-layin
fire-proofing; but no, the union says
man shall learn all branches of his
that specialists shall work on the u
under the master who employs t
workmen. "No lumping out of
is the watchword. In actual case
of strikes, the carpenters and the m
stopped such "lumping."

"We can't afford to have the trad
say they.

Against this and other union ac
ployers protest, even when they

cept the union idea of collective bargains. A sub-contractor, for example, made his bid on the basis of prevailing wages. When the work was under way his men struck for more. He had to yield—and lost $10,000.

"You should have told me before I made the contract," he protested.

"Business is business," said union men. "This was our chance."

Another builder was in a quandary. Both the carpenters and the metal workers claimed the hanging of tin-covered wooden doors. Each union threatened to strike unless it got the work. What was the builder to do?

Two painters' unions are at loggerheads. If "Amalgamated" painters are hired in New York, "Brotherhood" painters will strike, the builders maintain, on all a builders' work outside of New York, where the Brotherhood is strong. If "Brotherhood" painters are hired in New York, the "Amalgamated" painters, so the builders say, will call sympathetic strikes within the city—where they have the upper hand. As one union outlaws the other, no division of work may be made. The employer is between the devil and the sea.

In brief, then, some unions do obstruct the efforts of employers to seek the most economical forms of industry, maintaining that this falls as clearly within their province as obstructing attempts to economize in wages. As for the quarrels between trade and trade: any single union regards itself as a body doing business in labor for its own advantage, and justified thus in fighting its competitors as well as the buyers of labor. But, after all, the main contention in the matter of union restriction is that the ambitious man is held back. Is he? He has always the chance to rise to be foreman. In many trades he gets higher pay than the minimum union scale. In those where this is impracticable, the union scale, the unions maintain, is at least as high as any individual bargain he could drive were unions non-existent. And if union men maintain that a rushing system kills men early—that a fair day's output of skilful American work is better for the workingmen than the fuller fruit of competitive racing, to be plucked by the employer, I have found no fact to controvert them. If the theory is carried to excess, if there is any noticeable, flagrant, English dawdling, I could not find it.

we never meet one of you but he te
all our dearest friends among th
people of no standing at home. As
determined not to help each othe
not and will not decide between yo
your differences. We call you all
lightful Americans' and let you go
So I went away flattered if uninforn

Not long ago a certain young Am
a guest in a country house which r
unexpected visit from royalty.
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royalties were included. Then,
intervening, the great guests tho
could not come and their places
with people of less importance.
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be convenient, their Royal Highne
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and greater height. The young
went at once to his hostess, saying:

"Now I understand thoroughly
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should not have been included.
to relieve you of any possible emb
by going at once."

She only laughed at him: "
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up a story higher. You are the
of my troubles. I wish the othe
as sure of acceptability to the ro
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satisfies all possible inquiries."
to say whether this is a matter
or for resentment. But there al
to me still a certain condescens
very friendly attitude.

It seems ungrateful to discuss
is pure-hearted hospitality in thi
one knows better than I know ho
how true a friend an Englishn
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self about you. For every reaso
friendship when it is personally
doubt general demonstrations o
that rest on no such basis. To
plainly, when I see the beauti
showing herself excessively amiab

we never meet one of you but he tells us that all our dearest friends among the rest are people of no standing at home. As you seem determined not to help each other, we cannot and will not decide between you or settle your differences. We call you all 'those delightful Americans' and let you go at that." So I went away flattered if uninformed

Not long ago a certain young American was a guest in a country house which received an unexpected visit from royalty. It seems that when the party was first made up the royalties were included. Then, something intervening, the great guests thought they could not come and their places were filled with people of less importance. But, after the party had assembled, the hostess received a telegram saying after all, if it would be convenient, their Royal Highnesses would come with pleasure. Of course, there was a great hubbub, and a general moving of toilet articles to apartments of graded desirability and greater height. The young American went at once to his hostess, saying:

"Now I understand thoroughly that if your party had been arranged to meet royalty I should not have been included. And I want to relieve you of any possible embarrassment by going at once."

She only laughed at him: "You'll stay just where you are. Rather you will move up a story higher. You are the very least of my troubles. I wish the others were all as sure of acceptability to the royal guests. If you were an Englishman there would have to be great care and selection before you could be asked to meet them, but, as it is, one only has to say you are 'American.' That satisfies all possible inquiries." It is hard to say whether this is a matter for pleasure or for resentment. But there always seems to me still a certain condescension in this very friendly attitude.

It seems ungrateful to discuss much that is pure-hearted hospitality in this way. No one knows better than I know how good and how true a friend an Englishman can be after he has closed his long debate with himself about you. For every reason I value his friendship when it is personally won, but I doubt general demonstrations of affability that rest on no such basis. To speak more plainly, when I see the beautiful duchess showing herself excessively amiable to Americans regardless of their personal qualities, her manner seems plainly to say: "I really do not care for you so much. In fact, many of you are quite foreign to my point of view and to my taste, and you bore me. But I have made up my mind to be a political power in my day. And I know that England has no higher aim than some sort of an alliance with America. What I can do to further this I will do, even at personal inconvenience. But, although you Yankees are very amusing in your own way, you need not think that I am doing all of this because I am charmed by your fascinating personalities. I do it because I wish to be of importance, of service to my government—because I love my country."

I am always inclined to remind Her Grace of the complete divorce between politics and society in the American mind, and therefore of the utter futility of her efforts. Of course, if she had spent any time in Amercia she would soon have got some idea of the remoteness of "society" from its national life—in fact, of a certain disrepute in which "society" is held in America. But she has always associated government with what she calls "gentlemen," men to whom evening clothes are as inevitable as morning ones. They live a life which would be fatal to an American politician in many parts of the United States. An English reviewer of a recent novel of California life found what he called a curious note. One of the leading characters felt that he was committing a crime when he put on evening clothes and went to dine with friends while he knew of people hungry in the streets. Yet the novelist was quite true to life. The American felt that his "full dress suit" and a "company dinner" was "going into society"—no occupation for a serious mind. Friends and evening clothes to the Englishman are as usual as food itself.

This is a feature of American life that Europeans cannot be made to understand. Because open-handed American hospitality, coupled with curiosity, has made memorable the recent visit of a royal prince, his government and his people are likely to expect some abandonment of Brother Jonathan's business foreign policy. They might learn better even within their own gates. If the American people could ever once be properly impressed

republicans do not care for. It ofte
a harsh truth to hear that America
tion has but the sordid end of mere v
view. But it is a charge no more
but equally true, that the further ai
Englishman is only exalted snobl
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Briton will give the best years of hi
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asset to the public service of the n
which the republic does not enjoy.

I should be ungrateful and unfa
I misrepresented the true warmth o
hospitality or the dependability of
friends. Neither of these virtue
volved in this passing current o
Meantime I intend to make as merry
over John Bull's shortcomings at
ments and flattery, just as he will ca

THE NATION

SOME INTERESTI
AND INDUSTRIA
BY THE RECENT

BOOKI

THE National Negro Busines
has justified its existence a
lus to the race in commercia
The third annual meeting, held in R
Virginia, late in August, was att
Negro business men from almost ev
east of the Mississippi River, and s
States which lie still farther west.
one of the common business occupa
represented, and many that are less
Women as well as men are membe
League and come to its meeting
of the most interesting experiences h
related by Negro business women,
of the most encouraging reports
them. The success of the organiza

easy air with which Jonathan wears his w character of "man of the world." And for the others, they too often merit jibes ıether they be strenuous young Emperors ıo condescend to court the favor of strenu- s young presidents, or that true nation of ɔpkeepers and cooks which curbs its con- scension to foreigners only in so far as the sh box may suffer. They may not go on eir supercilious ways rejoicing. Even the pport of competent witnesses shall aid in eir conviction. Who so fit to testify in is case as he who knew and loved us so well, ıo lived with us, wedded one of our women d died nearer to our shores than to his ɣn? I cannot forget one of the most in- itive observations of R. L. Stevenson:

"I do not know where to look when I find yself in company with an American and e my countrymen unbending to him as to a rforming dog."

EGRO BUSINESS UE

OUT THE COMMERCIAL
THE NEGRO AS SHOWN
RICHMOND, VIRGINIA

SHINGTON

e first has been most gratifying. Indeed, e fact that the Negroes of the United ates, barely thirty-five years out of slavery, ould have become engaged in business to an tent that suggested the formation of a ıtional business organization is, in itself, a use for gratification.

The machinery of the League is very simple. ıy Negro man or woman who is engaged in ıy business is eligible for membership upon e payment of an annual fee of two dollars. is desirable, however, and it is recom- ended, that local leagues be formed to cō- erate with the central body to extend its fluence in their own fields; and in many ses this has been done—in places as far

League will now compare favoral
those of any similar organization.
think that the meeting of the Nation
Business League at Richmond wa
prise to Richmond, just as Richmo
surprise to some of the Northern and
members of the League. On the t
of the session two prominent white c
Richmond were overheard discus
League in a surprised and very g
manner. "It just beats me," one r
"It's different from any Negro con
ever knew before. As a general t
Negroes who come to conventions
hats and long coats and gold specta
carry canes, and stand on the s
These fellows go along about their
Some of them are mighty well dress
haven't seen a tall hat on one o
What this man said reminds me of t
public statement of the Chief of
Atlanta, just after five thousand Ne
in that city to attend the Young N
ple's Christian Congress, early in
As I remember it, he said that he ne
so large a company of people to as
Atlanta and require so little atten
the force of which he is the head.

The meeting in Richmond was tl
be held in the South. Among the
and Eastern men and women were
had never been in the Southern Stat
and others who had not been tl
childhood. From my own observa
from very general conversation, I am
was nothing in connection with tl
the delegates in Richmond to mar tl
ure in the visit or to detract in any
the highest success of the affair.
thoroughly appreciated by all pres
League particularly appreciated,
with reason,—the courteous and
attention which the press of the cit
its meetings and the generous amou
devoted to reporting its proceedin

Important as the annual meetir
League are, of course the chief va
organization lies in the general
which it shall be able to exert. Th
ment of interest in the movement ir
of Arkansas is typical of what had
in other States. When the Leagu
tablished, in Boston in 1900, one
came from Arkansas to attend the

George E. Jones, an undertaker of Little :k, one of the most successful colored iness men of the State. Mr. Jones went ne from the Boston meeting so enthusiastic l so impressed with the importance of the rk for good which the League could be de to do, that as a result of the interest ich he aroused in Arkansas there are now ive local leagues at Little Rock, Hot ings, Pine Bluff, Texarkana and Fort ith. The Little Rock league has forty-) members. These local leagues hold ular meetings, usually once a month, at ich questions are discussed which pertain the business interests represented by the mbers. In addition, public meetings are d to which the public in general is invited l at which topics of general interest are :en up. In spite of the fact that the League s been deprived of the services of its first ive member in Arkansas by death within last year, the increase in the work of the ganization in that State is still going on.

A careful study of the Negro in business in United States, made by Professor W. E. DuBois for the Atlanta Conference in 1899, owed the following generalizations, and the orts of the Business League make it seem sonable to believe that there has been a ady development since then:

ital under	$100	16
	$100 to $500	312
	$500 to $1,000	415
	$1,000 to $2,500	586
	$2,500 to $5,000	183
	$5,000 to $10,000	115
	$10,000 to $50,000	45
	$50,000 and over	12

Total capital invested by these known cases, $5,691,137.

Dr. DuBois says: "Compared with the mense sums of money invested in American siness, this showing seems meagre enough; t when one remembers the poverty and ining of the Freedmen, the saving and in- stment of six or eight millions in enter- ses managed by themselves is a most editable accomplishment." This, of course es not include the very much greater ount invested in land and agricultural cupations.

The same study showed that at that time e race in the United States had three agazines, three daily papers, eleven school pers, and one hundred and thirty-six ekly papers.

From out this large number it would be possible to designate even a very small

AN

The National Negro Business Lea
et going an earnest and active inquir
our people as to each other's success
ness, and has brought to view from
wide many business enterprises whi
not known beyond the immediate
vicinity in which they are locate
knowledge has given a feeling of fe
among our people which serves to st
and encourage them. We are led to

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THE CAREER AND DISTINGUISH
GERMANY, WHO HAS RESIGNED,

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PROFESSOR OF

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Empire will retire from office next N
on his seventieth birthday. While M
activity will not end, it is probable
resignation will mark the close of a lo
career, which has included a wider e
than any other man in our foreign s

Mr. Andrew Dickson White, forme
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famous class" of '53 at Yale, becam
of the American legation at St. P
soon after his graduation. In 187
the youngest member of the San
Commission. He was also the n
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known wishes, he prevented a report
annexation. Eight years later M
succeeded Bayard Taylor as Minist
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tion, established by Wheaton and
of scholarly sympathy with all that
German life. Men of political views
ent as Bismarck and Lasker were h
In 1892 he was appointed Minister
In 1896 he joined his classmate, D
Coit Gilman, on President C
Venezuela Commission. The n
President Harrison named him for
which he has now resigned.

The National Negro Business League has set going an earnest and active inquiry among our people as to each other's success in business, and has brought to view from far and wide many business enterprises which were not known beyond the immediate town or vicinity in which they are located. This knowledge has given a feeling of fellowship among our people which serves to strengthen and encourage them. We are led to feel and know that we are playing an important part in a field which for many years has been almost wholly occupied and operated by other races. It has strengthened us in the eyes of the world in that it is being shown that we are beginning to get that in hand which makes us brave men and women, and that we are contributing materially to the financial, commercial and manufacturing interests of our great country.

ANDREW D. WHITE

THE CAREER AND DISTINGUISHED SERVICES OF THE AMERICAN AMBASSADOR TO GERMANY, WHO HAS RESIGNED, TO TAKE EFFECT ON HIS SEVENTIETH BIRTHDAY

BY

CHARLES H. HULL

PROFESSOR OF AMERICAN HISTORY AT CORNELL UNIVERSITY

IN pursuance of a plan recently made public but long known to his friends, the American Ambassador to the German Empire will retire from office next November, on his seventieth birthday. While Mr. White's activity will not end, it is probable that this resignation will mark the close of a long official career, which has included a wider experience than any other man in our foreign service.

Mr. Andrew Dickson White, formerly president of Cornell University, a member of "the famous class" of '53 at Yale, became attaché of the American legation at St. Petersburg soon after his graduation. In 1871 he was the youngest member of the San Domingo Commission. He was also the most conservative. In the face of President Grant's known wishes, he prevented a report favoring annexation. Eight years later Mr. White succeeded Bayard Taylor as Minister at Berlin. There he happily continued the tradition, established by Wheaton and Bancroft, of scholarly sympathy with all that is best in German life. Men of political views as different as Bismarck and Lasker were his friends. In 1892 he was appointed Minister to Russia. In 1896 he joined his classmate, Dr. Daniel Coit Gilman, on President Cleveland's Venezuela Commission. The next year President Harrison named him for the post which he has now resigned.

Nowhere, during this generation, has the United States more urgently needed a skilful diplomatist than in Berlin during the Spanish war. Time alone can lay bare the tortuous course of European diplomacy in those years and thus make plain the whole extent of Mr. White's services. But we may be sure even now that they neither began nor ended with his frank and clever speech at the American dinner on July 4, 1898. Delivered at the crisis of the war, that speech cleared the atmosphere of popular discussion between Germany and the United States. In other and less public ways the atmosphere of official discussion was cleared as well. Compare the disposition of Americans towards Prince Henry leaving Manila Bay with their attitude towards Prince Henry leaving New York Harbor.

Mr. White's first appointment to a major diplomatic post was due, apparently, to his position in the educational world. And the essential qualities of the man are perhaps best revealed by the course of events which made him a teacher and a college president. When he began teaching in 1857, he had already enjoyed the advantages of wide travel. Under the instruction of Woolsey at Yale, of Laboulaye in Paris, of Boeckh and Karl Ritter in Berlin, he had acquired "a sense of the moral value of political history." He

cience with Theology in Christ
book about which opinions must
iffer for the very reasons that ha
uced the warfare which it recoun
/hite's idea of the whole matter is
ressed in his own words: "There i
the universe wise enough to make a
eking safe, and good enough to n
uth-telling useful."

Mr. White's predominant interest in
flected in his choice of pictures and c
painting of "Vesalius, who first,
uch opposition, revealed through di
e true structure of the human b
teems above an equally compete
"The Anatomy Lesson." It may
etter picture. But it means so
A similar interest guided Mr. Whit
lection of his library. He began
undergraduate. By 1891, when
nted it to Cornell University, it ha
some 25,000 volumes. They cov
hole field of mediæval and mod
ry. But they centered especiall
rtain periods and certain topics of
al and moral interest, notably ab
rotestant Reformation, the Frenc
tion, the American Civil War, and
ry of witchcraft and of judicial
ere, and indeed throughout the
t merely authority was sought, b
ation also. Pamphlets figured bes

HE LA FOLLET

AN INSIDE HISTOR
WHY SENATOR SP
FIED — STATE ISS

E.

MEMBER OF THE WISCONSIN LEGISL

TWO men of national promine
issues of vital importance, t
of contest between a State-wid
any" organization, with an almost
mpaign fund, on one hand, and the
form, led by Governor La Follette
her; and a remarkable State Conv
thousand delegates,—these are the

y proceedings. Broadsides jostled
. Caricatures mocked charters.
cs were there, and beautiful books
But neither rarity nor beauty was
object of Mr. White's persistent
He sought rather to assemble books
light upon the great tendencies of
ought and upon the development
civilization." In this and in the
or interests of his life there is a
istency.

ite is a delightful talker. A wealth
al anecdote and of personal reminis-
apt quotation and happy allusion
rth his conversational board. A
humor garnishes the daily fare.
ublic he is not always grave. When
York Germans gathered at the
nz to wish the new Ambassador
on his way to Berlin, his toast ex-
hy the Americans and the German
s of the fifties at first failed to
d one another. The explanation
ce jocose and sympathetic. Sym-
remarks seldom lack, but jocosity
usual vein. A sense of public
lity brings out the essential serious-
man. He is not merely "an after-
aker." In the easier intercourse of
e he possesses to perfection the art
y teller, making of a characteristic
l that it will bear, and no more.

NER CAMPAIGN

LITICS SHOWING
ENT WAS QUALI-
R LA FOLLETTE

S

EVENS PRIMARY ELECTION BILL

wide interest to the present political
n Wisconsin.

has any State platform attracted
ntion than the one adopted by Wis-
publicans July 16th last, or any
State or National, more fully
ut in a pre-convention campaign.
years of fighting, the advocates of

xcept such fraternal and other as
s are now exempted from taxatior
bear a justly proportionate sh
urdens of taxation."

The plank pledging the return
pooner to the United States Senat
idely discussed under the misap
hat Governor La Follette and his
eeking to prevent the reëlection
pooner, and that an effort is b
elect Mr. La Follette in pla
pooner. Such is not the fact.
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ffice. Twice in the past decade
easures for which he stood has im
refuse tempting Federal app
ore than that, by his acceptance
tands pledged to carry out the pl
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enator Spooner announces his ir
ecome a candidate in accordanc
latform, Governor La Follette wil
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The men who framed and adopte
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States Senator.

The Spooner resolution is the fru
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The Federal appointees, who
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district attorney, spent practical
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ook active personal charge of the f
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very detail of the contest even t
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air Republicans in favor of t
with Democrats who were absent
sserted would vote against the bill
These men were violating civil s
nd giving their time to defeat th
heir party as to State issues.

More than that, at a critical tim

except such fraternal and other associations as are now exempted from taxation by law—to bear a justly proportionate share of the burdens of taxation."

The plank pledging the return of John C. Spooner to the United States Senate has been widely discussed under the misapprehension that Governor La Follette and his friends are seeking to prevent the reëlection of Senator Spooner, and that an effort is being made to elect Mr. La Follette in place of Mr. Spooner. Such is not the fact. Governor La Follette's only aim in this campaign is to secure the passage of the laws to which his party is pledged. Two years ago he stated positively that he would seek reëlection as Governor—not be a candidate for any other office. Twice in the past decade interest in measures for which he stood has impelled him to refuse tempting Federal appointments. More than that, by his acceptance speech he stands pledged to carry out the platform, including the return of Senator Spooner. When Senator Spooner announces his intention to become a candidate in accordance with the platform, Governor La Follette will earnestly advocate his return.

The men who framed and adopted this platform were not opposed to Senator Spooner; but they believed that the principles of equal taxation and nominations by direct vote were of greater moment than the renomination of a Governor or the endorsement of a United States Senator.

The Spooner resolution is the fruitage of the two years of opposition to platform pledges, carried on in Senator Spooner's name, leading up to the State Convention.

The Federal appointees, who owed their places to Senator Spooner's recommendation, particularly an internal revenue collector and a district attorney, spent practically their entire time at the sessions of the last Legislature, took active personal charge of the fight against the primary election bill, and looked after every detail of the contest even to proposing to the author of the bill that he arrange to pair Republicans in favor of the measure with Democrats who were absent, who they asserted would vote against the bill, if present. These men were violating civil service rules and giving their time to defeat the pledges of their party as to State issues.

More than that, at a critical time, after the primary election bill had passed the house, when its fate in the Senate seemed uncertain, Senator Spooner came to Madison, and with some of these Federal appointees met certain State Senators, some of whom had expressed themselves as favorable to the bill within a short time previously. After the conference some of them became outspoken opponents of the measure.

The delegates who sat in the convention felt that the record of the last Legislature must not be repeated. They respected every man's right to his personal opinions, but insisted that no man has a right to ask or accept the suffrages of his party and afterward use the influence of his position to defeat the platform pledges. These delegates, almost to a man, came from counties where the contest had been carried on in the name of Senator Spooner, and not with that of any rival candidate for Governor. In some counties Senator Spooner's name or picture headed the ballot of the anti-reform delegates. Yet this same convention that renominated Governor La Follette by a vote of three to one, pledged Senator Spooner the support of the party for reëlection in the same decisive vote.

Before the convention had adjourned, the so-called Republican League raised the cry that Senator Spooner had been "sacrificed," and set about securing a Legislature that would defeat the platform on the pretext of securing a Legislature that would return Senator Spooner. They either say nothing of equal taxation and direct primaries or repudiate those pledges entirely.

Wisconsin Republicans are having a vigorous campaign pushed for legislators who are favorable to United States Senator Spooner, while Senator Spooner is already actually pledged the party support. The explanation of this anomalous situation is that under the plea of working for Senator Spooner, those opposed to Governor La Follette and the party pledges, hope to secure a Legislature subject to the control of the lobby and the professional politician.

The contest in Wisconsin is not over the selection of a United States Senator. The real contest is over the question whether legislative bills may be passed equalizing taxation.

That the two men who occupy the centre of the stage should not take the same view of political conditions and problems is not

surprising. One went to the State University from the home of a prosperous lawyer; the other worked his way up to and through the same institution of learning from a log farmhouse. One was early employed as an attorney by the great public-service corporations; the other employed his talents at the bar in the service of men. One was chosen United States Senator by the aid of the political machine; the other became Congressman, then Governor, in spite of the active opposition of that power in politics. One has amassed much wealth while in the public service; the other has expended his earnings in the support of principles.

But the people are not concerned with any personal or other differences that there may be between these two men. Wisconsin is proud of both. The people ask today that both of them be retained in the public service, the one in working out State problems; the other in the solution of National questions; each unhampered in his sphere by the other These are the reasons that lie back of the plank in the State platform which has called forth so much discussion in the press of the country.

WHAT NEW YORK PAYS TO GET TO ITS OFFICES

IT will cost the Pennsylvania Railroad $50,000,000 to build its projected tunnel under North River. It will cost about $10,000,000 to build the first of the rapid transit tunnels under East River, connecting Manhattan Island and Brooklyn. It is costing the City of New York $36,000,000 to construct the "Rapid Transit" subway which is now under construction through the whole length of Manhattan to the northern suburbs. It is costing about $12,000,000 to build the new East River bridge. The old Brooklyn Bridge cost about $17,000,000. The Manhattan Elevated Railroad is spending millions in equipping its lines with electricity. The New York Central Railroad is to spend a dozen millions or more in placing electricity as the sole motive power to be used in the hitherto smoky, perilous Park Avenue tunnel in New York City.

These expenditures are primarily for one specific purpose: that New York may get to its office the more conveniently and expeditiously. New York has grown to be a great metropolitan population. It is spread out in a great territory of some seventy-five miles radius. Six million people is not an extravagant estimate of the number of individuals who focus their business energies upon the Island of Manhattan or who depend upon the activities of that island for their ance. Manhattan Island, therefore, ning one vast office. The earth is being penetrated to an absurd depth to accommodate this vast mass of people, and towers, called office buildings, are being reared to a frightful height that just a few more people may get huddled together within the same square feet of territory. There is as much activity within one of the great sky-scrapers in the Wall Street district of New York today as there is in the whole of many cities. It is necessary that in a locality where such vital things are going on men should be able to communicate in person as quickly as possible. Even telephones will not serve as a substitute.

The big fact that stands out in all this is that New York wants to be able to reach its office just as quickly as can be. One hundred million people cross North River on ferryboats every year, the Manhattan Elevated Railroad hauls 600,000,000 persons every twelve months, and over the Brooklyn Bridge 100,000,000 persons go in the course of every year. The figures which have been mentioned regarding costs refer to what are but beginnings. Vast schemes are being planned. Minutes are great big dollars in this nerve-consuming town. That is why New York is pouring out such fabulous riches for its transportation, building homes and offices upward and downward and connecting them by the most complete system of surface and elevated railroads, tunnels and bridges in the world.

Photographed by Arthur Hewitt

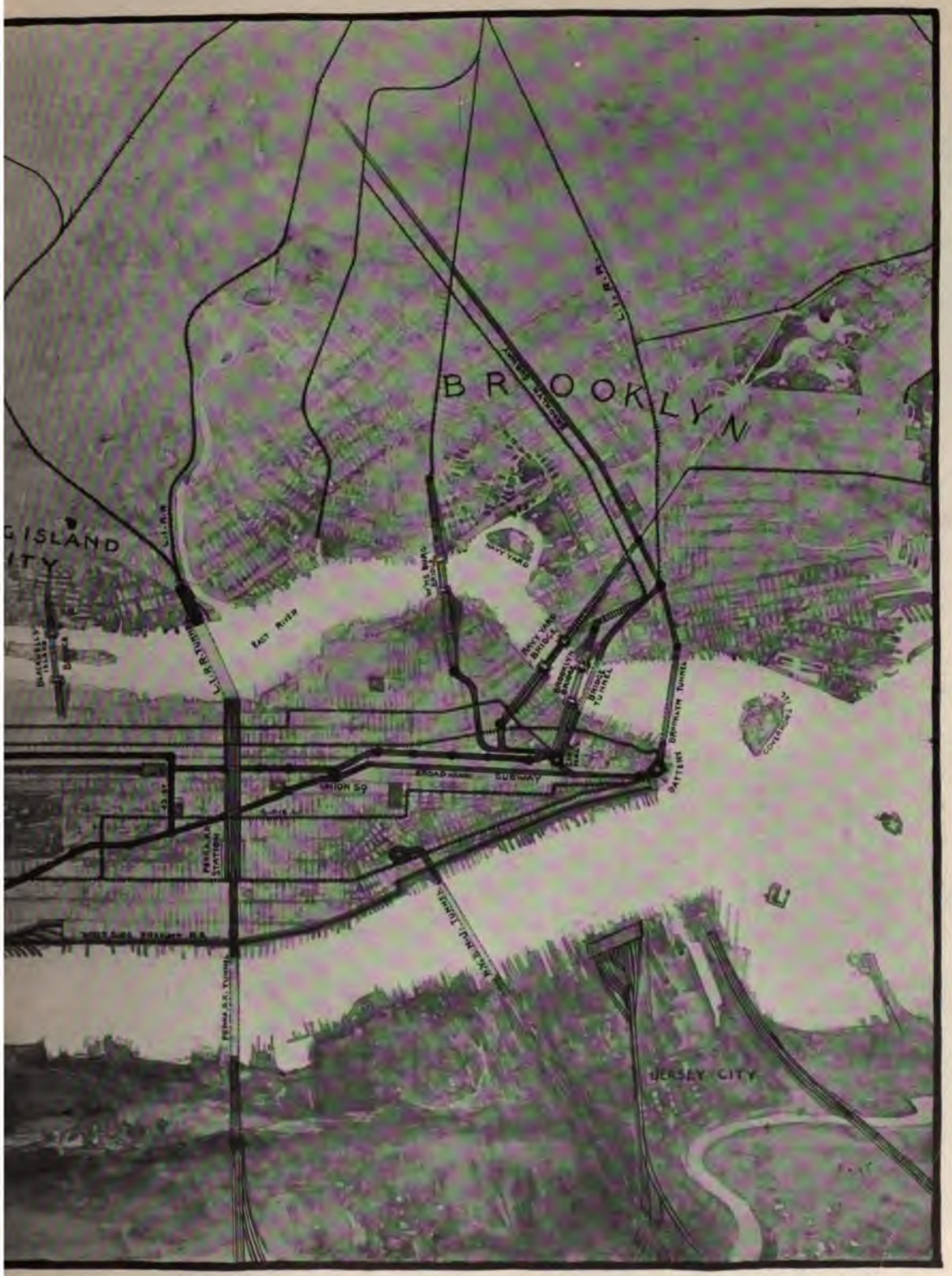
BUILDING UPWARD IN NEW YORK

The remarkable "Flatiron" building at Madison Square

PREPARING RAPID TR

The Brooklyn Bridge and the railroads the only facilities now existing: the subwa

[NOTE.—The East Side subway route and the Brooklyn



MILLIONS IN NEW YORK
he tunnels, the West Side freight railroad are half completed, just begun, or projected
ly approximate. The exact routes are not yet settled upon]

Photographed by A. Hedley

BUILDING DOWNWARD IN NEW YORK

The excavation for the subway station at Forty-second street. The Grand Central Station is in the background

TYPICAL AMERICAN EXPERIENCE

)UNTRY merchant, while on a pleas-
ıre trip some years ago, visited a
own island in New York harbor and
uced to buy out a coal business. In
ays, coal was taken from canal boats
ıs of an iron bucket, elevated by horse-
nd dumped by hand. Being of an in-
turn of mind, he devised and pat-
machine for unloading coal, and with
: confidence in his invention and in
he sold out the coal business in order
the sale of his new device.

raveled and worked persistently to
:e his machine, and at the end of the
d lost $4,000. Most men would have
with the belief that their invention
wanted, and that only continued loss
'ollow further effort. But this man
h in his machine, and the second year
ked longer hours, lived at cheaper
saved wherever he could, and at the
hat year had lost an additional $3,000.
hird year there was no distance too far
no hotel too cheap to lodge at, no day
ıugh to work. Economy was the watch-
erseverance his policy. At its close he
ed that he had just held his own.

ourth year's efforts were increased, a
gid economy enforced, longer hours
ce rendered, with the result that at
l enough money had been made to
the $7,000 lost. From that point on
has followed every effort, and money
apidly.

man is today the president of a great
cturing company, that owns its plant
ıny encumbrance. He has acquired a
, and is known the world around for
ɔerior quality of the machinery and
ents, connected with the handling of
ıat his company manufactures.

IDENTIFYING TEXAS CATTLE

T out that spotted steer with the C. C.
brand in the second pen and the red
:h the same brand in the last pen." A
man who had the appearance of a contented drover made the remark as he rode among the pens in the Kansas City stockyards. He was an inspector for the Cattle Raisers' Association of Texas. When cattle bearing the I. X. L. brand were being unloaded he had noted the two from the C. C. ranch. They had mixed on the range with the I. X. L. herd, and had been overlooked in the round-up, had been bought by Mr. I. X. L. or had been stolen. The question of ownership would be settled later on, and the commission house buying the cattle would make out a check for them payable to the Cattle Raisers' Association of Texas. If, after three months, Mr. I. X. L. should be able to prove the brand had been transferred to him, he would get the money. If not, it would go to Mr. C. C.

Notwithstanding its name, the association is not confined to Texas. It has more members in adjoining territory than in the Lone Star State. It embraces two-thirds of the extensive cattle-raisers of Texas, Oklahoma and Indian Territories, Arizona, Colorado, New Mexico, and many in Kansas. It represents 25,000,000 head of live-stock and hundreds of millions of acres of land; it represents $900,000,000, a third of a million more than the great Standard Oil Company, and almost as strong in point of money as the world-famous Steel Trust. It is an avalanche of men who mean business and who get what they go after, from a band of rustlers to a national act of legislation.

HOW THE CATTLE RAISERS' ASSOCIATION WAS ORGANIZED

THE association was organized in 1877 in the town of Graham—which then was composed of a big oak tree and one building—Young County, Texas, and began its existence with a membership of twenty-five cowmen. Colonel C. L. Carter was an extensive grower of cattle on the northwestern portion of Texas, almost on the border of the hostile Indian country, and

in the territory that had been, for several years before, the scene of the war between Billy the Kid and John Chism, kings of rustlers. Their bands had been broken up six years before and were scattered over the cattle country in knots of ten and twenty, stealing cattle and murdering ranchmen as in the old days. In an encounter with them the eldest son of Colonel Carter was slain. Carter rode for three days without rest or sleep, gathering a band of cowmen from the widely scattered ranches. They took the trail of the rustlers who had murdered young Carter, shot most of them, and hanged the remainder. Then they sat down under the oak tree in Young County and organized the Cattle Raisers' Association of Northwestern Texas. As it grew the "Northwestern" was cut out of the name, leaving it as it is at present.

The first thing the association did was to employ rough riders who shot cattle thieves on sight. Each member held himself ready to drop all personal affairs at any moment and join a movement against the outlaws. After a few years of concerted action against the rustlers their strength was broken, and the matter of attending to them was left to the Texas Rangers and sheriffs of the different counties. The association had grown so strong that it began to turn its attention to the State Legislature and the National Congress. There are now almost fourteen hundred members in the association, all of them big cattle-growers. Last year the association spent about $75,000. Of this amount $5,000 was expended on the legal department, which shows how the cattle-stealing business has dwindled.

This association is in no way a trust. No attempt is made to make or control prices. Each member sells his cattle when, where and for what he pleases. The association has always been aggressively arrayed against all measures, State and National, inimical to the live-stock industry. It has won in nine cases out of ten in all the fights it has taken up, but in the most important contest of its life, that over the Oleomargarine Bill, lately passed by both houses of the National Congress, it suffered a partial defeat. The efforts of the association have been aimed mainly at the revision of Texas laws governing the live-stock industry in that State.

THE WANING OF THE "RUSTLER"

MOST of the notorious outlaws of the Southwest owe their downfall to the association. Of these Martin Monrow, who operated in the northwestern part of Texas, was the most desperate. Monrow held the record for cattle "burning." "Burning" is the process of obliterating or disguising the brand on a stolen animal so that it cannot be identified. Monrow was killed while resisting arrest at El Paso, Texas, a few years ago. At the most prosperous stage of his career he had a band of between twenty and thirty men, and during the fifteen years or more he operated in the range country he is believed to have stolen no fewer than 15,000 cattle. Most of these he ran across the Rio Grande into Mexico. In his gang were many notorious men. "Butch" Cassidy, who afterward became the terror of the Wyoming range, and who was killed early in the present year, was a pupil under Monrow.

While Monrow was low-minded, ignorant, and brutal, he had one big quality that in some measure redeemed him in the eyes of the men who followed the rough life of the range. He would not desert a comrade in time of trouble. Down in El Paso, in the early part of his career, before he had become bold enough to allow evidence of his misdeeds to become apparent, he was ostensibly running a ranch and struggling along with the rest of the pioneer cattlemen. A man in his employ was caught driving off a bunch of cattle from a neighbor's herd. By some mischance the fellow fell into the hands of a newly elected sheriff and was not hanged. He was duly arraigned and held under bond of $3,000. Monrow was present at the time and offered to go on his bond. The justice would not accept Monrow.

"Nothing but cash goes in this here court," he said.

Monrow rode away. Five days later he appeared, deposited the cash bond for his friend, furnished him with a horse, and together they headed toward the south. Within an hour a band of cattlemen picked up the trail and followed it to the Rio Grande. Monrow had stolen an entire herd, rushed it across to friends in Mexico, and in that manner raised the security the court demanded for his friend. Of course, the man never returned for trial, and Monrow began open operations shortly afterward.

What little cattle-stealing is being done in the Southwest at present is carried on by men who are not worth being run down and shot. They are small thieves, who are content to make away with a steer at a time. But the care of the association is not allowed to slacken for all that, and the thief is encompassed by so many difficulties that sooner or later the most

cunning is sent to prison. Special detectives are employed by the association to gather evidence against such thieves.

THE METHODS OF THE CATTLE RAISERS

The association has done much to improve the standing of Texas cattle. The picturesque long-horned steers of twenty-five years ago have given place to shorthorns, and on many of the big ranches polled cattle are raised entirely. The long-horned steers were very good for the days when cattle were driven from Texas to Montana over desert trails. Their powers of endurance were great. But when the railroads came across the range horns were found to be in the way. The longest horned Texan cattle now are not far ahead in that respect of the scrub cattle one sees in the East. The Cattle Raisers' Association has demonstrated that gentler breeds of cattle can live and thrive on the range. For a long time this was thought to be impossible. All sorts of schemes for breeding a hardy yet large beef animal for the range were tried, among them that of crossing the buffalo, or American bison, with range cattle. It was thought this would give the required size and hardiness, but it was not successful.

In the association there are many millionaires. In the cattle business one may be a millionaire this year and a bankrupt five years hence. And the reverse is often true. It is a business of great risks and swift changes. Of late years the annual convention has been the occasion of much trading, in which vast sums of money change hands. In most instances the cowmen carry with them a great deal of money. It is not unusual upon the consummation of a deal amounting to $50,000 or $100,000 for a cowman to pull the money in bills of large denomination from his pocket and settle the account on the spot.

The cowman's idea of a good time is measured by the amount of money it costs him. When he goes to Kansas City with a trainload of stock he generally has a good time. A good time means champagne. Champagne comes high; it is unquestionably genteel; therefore the cowman buys it at all hours. A cowman's breakfast order in a leading Kansas City hotel café was: fried catfish and champagne.

For twenty-five years the Cattle Raisers' Association of Texas held its annual convention at Fort Worth. Next year it will be held at El Paso. Each year the cattlemen's convention brought to Fort Worth, for eight or ten days, from five to ten thousand people, among them rich commission merchants and droves of buyers from the North. Cattlemen are considered by fakirs as primitive men. During the last convention at Fort Worth there was an unusual attendance of light-fingered gentry. Around in places most frequented by cattlemen the fakirs flocked like faithful sons and daughters of the Church, seeking the reliquary of some saint where by faith they would be relieved of all ills. The lame, distorted, cancerous and all who made capital of their afflictions, showing their hideous red sores; the blind, the feeble-minded, sat like an evil brood of unclean birds on the steps and in the doorways of hotels, restaurants and railway offices. They played melancholy or humorous airs—if there can be humor in an untuned fiddle or cracked accordion—and plucked at the garments of passing men and women, asking alms.

The Cattle Raisers' Association of Texas in these conventions and during the year has done much to educate its members, and the result has been great gain to them and better beef for the nation. To its efforts is due the use of cotton by-products, oil-cake and seed-hulls, upon which cattle are fattened and sold during the winter in Northern markets. The bulk of Texas cattle sold fat during the winter formerly were fattened on corn in the North.

The association has also been responsible for the enactment of better live-stock sanitary laws in Texas and for concerted action on the part of cattle-growers in fighting black leg, fever, and other diseases peculiar to the section south of the Federal quarantine line.

And its many lines of development are enlarging and working a wider, better system yearly.

A NEW USE FOR PHOTOGRAPHY

A WESTERN railroad has found a new use for photography. The road in question uses it as a substitute for written reports, whenever possible, and also not infrequently for tours of investigation. It conveys necessary information clearly and swiftly; it simplifies supervision. Any great undertaking may be superintended by the use of such a system. Indeed, it has already been found expedient to alter plans on the strength of information given by the photographic reports. The photographs tell what has been done better than any written description, and they constitute a continuous record of the progress made in structural undertakings.

In order to show the magnitude of the undertaking, the duties of the official photographer of the Chicago & Alton Railroad may

be given, for the Alton, so far as known, is the first road to perfect a system, using it both in the constructing department and in the operating department. The bureau was established under the new plan November 1, 1901, and this was the work assigned to it:

For the engineering department—

1. A complete set of "progress pictures," taken at stated intervals, of all construction work along the right of way, including track-laying, filling, grading, ballasting, curve-eliminating, bridge-building, crossing-work, depot-building, shop-building, and culvert and subway construction.

2. A complete set of "progress pictures" of all work not along the right of way that is being done by, or for, the company. This includes reservoir construction and miscellaneous engineering work, such as the revetment along the Missouri River near Glasgow, Mo., to prevent the washing away of the road-bed.

3. A complete set of "progress pictures," showing the resources of the road in the way of crude building material and how they are used. A good illustration of this is a set of stone quarry pictures, beginning with the unquarried stone (that also shows the extent of the quarry) and carrying it through all the various changes until it is used for the road-bed or for buildings. The condition of quarries and gravel pits is also made the subject of periodical photographic reports.

For the operating department—

1. A complete set of photographs of every mile of the road, showing every curve, grade, crossing, side-track and switch.

2. A complete set of photographs of every signal plant on the line, showing each movement of signals.

3. A complete set of photographs of standard signs, which vary in shape according to the purpose for which they were erected, and thus may be recognized even when the wording can not be discerned. In addition to mile-posts, section-posts and whistling-posts, these include signs for depots, crossings, yard limits, city limits and county lines.

4. A complete set of photographs illustrating the book of rules which governs the operation and protection of trains.

For the mechanical department—

1. A complete set of photographs of all classes of equipment and motive power.

2. "Progress pictures" of locomotives, cars, etc., that are being built, rebuilt or repaired.

3. Photographs showing changes and improvements in the shops.

For the legal department—

1. Photographs of the conditions after any wreck or other accident.

2. Photographs of the exact situation at any point where a legal controversy is likely to arise. In this connection it may be said that the legal department frequently has use for the pictures taken for other departments.

The official photographer obviously has no sinecure. He has the best possible equipment and the very best results are expected. Like the soldier, he must be always in readiness for marching orders. The use made of his results may be shown by that of the pictures taken of the Missouri River revetment work.

The revetment was made essential by the encroachments constantly made on the road-bed near Glasgow, Mo., by the eddying river. The Government tried ineffectually to protect the banks. The railroad then undertook the task, beginning with a photograph. This was to show the existing conditions, as a basis of comparison for the future. The photograph was dated. At regular intervals thereafter photographs were taken to show the progress made, until the work was completed. That these are of great value to the directors and other officials, to whom they are regularly submitted, will be easily appreciated; but they also have another value. The work, which involves weaving and sinking great mats that will hold together (and also hold the rock filling in place) under stress of any rush of waters, is most interesting to civil engineers and students, and even to laymen. The actual photographs show the details better than any diagrams or drawings, and a complete set of them already has been requested by the Massachusetts Institute of Technology for the students. In no other way, except by watching the work, can so clear an idea be gained.

In the same way the record of the construction of a bridge or a depot or a culvert is kept, and when the undertaking is great enough to warrant it the photographs of the plans are later bound in a separate book. Thus they serve a double purpose: first, they keep the directors informed; second, they become a history valuable for reference in connection with any proposed changes later or any similar work in the future.

Over the Missouri River at the same town—Glasgow, Mo.—near which the revetment was done, was an old bridge, the first steel bridge of its kind to span such a river. A new and better one was desired; but traffic must not be interrupted. The old one was of three spans, with a long approach that was practically a two-span bridge in itself; the new approach

was to be shorter and the new bridge longer, with four spans instead of three. Naturally the directors and all the high officials took a deep interest in the undertaking. Under former conditions occasional trips would have been made to the scene, but the photographic bureau made this unnecessary. The construction history of the bridge was always on file, and in addition photographic reports were made directly to the interested officials. To the query, "How's the bridge at Glasgow getting along?" an answer could be given by displaying a photograph and saying, "That was the status of affairs Thursday of last week." It had been customary, after written reports, to say, "Well, let's take a run out and look at the bridge itself." Now it is easier to have the bridge brought pictorially to headquarters. Furthermore, the work demonstrated that a photographic history of the construction of the old bridge would have helped in replacing it.

The photographs are of use as well in the matter of repairs. They elucidate plans and specifications; they give information showing where the work dragged and where it was rapid. In some instances they actually show methods, as in the case of the track elevation in Chicago, where the tracks were raised one at a time and a little at a time, until, when the task was half completed, they resembled a series of terraces or enormous steps. They answer the questions:

"How was the task accomplished?"

"How long did it take?"

So far, this railroad scheme is available for any large structural undertaking; it may soon be a regular feature of such enterprises. In Government affairs it might be of immense advantage, if properly systematized.

The other details of this railroad scheme, however, are not capable of such general application. They deal with the instruction of employees and the operation of trains. Every mile of the right of way is photographed, for one thing, in order that every employee may become reasonably familiar in advance with any new run to which he may be assigned. This makes the men more readily interchangeable than usual. Then the photographs of the standard signs and the interlocking signal stations and the photographs illustrating the book of rules are transferred to colored stereopticon slides and sent out with the instruction car. This is kept constantly moving over the road, and regular classes are held, with compulsory attendance of employees. The men are advised of every new development in motive power, every change (no matter how slight) in the right of way, and every detail in the operation of trains. In illustrating the book of rules alone, there are more than a hundred photographs, showing trains in every possible combination of circumstances; and the trainmen are informed what to do in each case. In examinations the slides show the position of trains or signals in certain instances, and the trainman is called upon to tell what, under the rules, he would do in each case. It is the best kind of instruction.

"This feature of the work," according to Mr. Dudley Walker, of the Chicago & Alton, "has proved invaluable in keeping the men constantly alive to the needs of the road and to their own opportunities. This alone is enough to warrant the maintenance of the photographic bureau. But in other respects the results have been all that were anticipated. The President inspects all photographs taken, each officer examines the pictures of his particular department, and any one else to whom they can be of any value may see them. We have found by experience that the photographic report frequently enables an officer, while sitting at his desk, to direct the work being done, order changes, remedy defects, and even to make new plans—in short, to take such personal supervision as would not be possible otherwise without frequent trips to the scene. Nothing else could give them so much information so clearly with so little loss of time."

The rest of the work of Mr. C. S. Jackson, the official photographer of the Alton, is more like what is done for all roads. In case of an accident it is his business to get to the scene at the earliest possible moment. The question of improved rolling-stock and other facilities for handling business is of so great interest to shippers that all roads see that they are duly enlightened by pictures. The same is true of scenery and anything else that has an advertising value. Mr. Jackson looks after all this, too; he has put a series of pictures illustrating the operation of a great railroad on stereopticon slides for the entertainment of the public. These are sent from place to place in a special lecture car, with a lecturer to explain them, and the cost is charged up to the advertising account.

Photographic advertising, however, is old. Systematic photographic reports are not. Their field is large.

SOFT COAL BURNED SMOKELESSLY

THE anthracite coal strike has changed the aspect of New York: seen from the bay it is now a city of murk. Other Eastern cities also suffer from the soft coal smoke nuisance. And yet, though the fact is but

vaguely known, the disfigurement is needless: bituminous coal can be made by modern inventions practically smokeless.

Smokeless furnaces, to be sure, are dear, ranging from a few hundred dollars to fifteen hundred, and thus far no successful smoke-consuming appliance has been invented for household purposes; but for industrial uses on a fairly large scale smokeless soft coal fires are not uncommon. One firm, whose business has been greatly helped by the strike, has sold over 8,000 smokeless furnaces and is now shipping orders to Japan. Buyers have decided that the saving in cost of fuel offsets the high first cost of the furnaces. For not only is bituminous coal normally only half the price of anthracite, but the successful invention provides for burning the coal with the minimum of waste.

Coal smoke is unconsumed carbon—wasted coal set free while the mass is heating. One form of smoke consumer, therefore, is a mechanical stoker that feeds the coal in slowly at the edge of the fire, forcing whatever smoke rises to pass the length of the fire-box over the glowing fire. The accompaniment of a hot-air blast secures nearly complete combustion. Another system, by reversing the draughts, sends the gaseous smoke down through the fire, the blue flames strangely playing down through the grate instead of up. The fire does not burn down, for naturally the fresh coal goes in on top, but all the gases descend. Below the grate is another grate, to which the smaller pieces of half-consumed coal keep dropping. What little gas escapes is burned in the roaring passage between the two white hot grates.

Anthracite coal must still be useful for domestic purposes, but even at the present rate of consumption it is computed that the hard coal fields will last but eighty years. Bituminous coal, on the other hand, is practically unlimited. It is cheaper—normally in New York about half the price of anthracite. The United States Government using down-draught furnaces of 1,100 horse-power in New York City saves yearly nearly $20,000 by burning soft coal. The soft coal has 75 per cent. less refuse. Used with satisfactory smoke-consumers there is a saving of 10 per cent. in the coal and of 10 to 15 per cent. in boiler capacity. Already since the strike there has been a great increase in the use of smokeless furnaces, which will probably have a permanent effect on the demand for anthracite. A wide use of smokeless appliances might lengthen the life of the hard coal fields.

OIL FIELDS IN ALASKA

ABOUT a year ago Mr. Peter Brown, a young mining expert of Seattle, Washington, while on a tour in the Alaskan Peninsula in the interests of a mining syndicate, read the reports of a Russian navigator named Becharoff, who made a cruise along the coast during the latter part of the eighteenth century. In reports and log-books left in Alaska the Russian mentioned having seen a "lake of oil." Pilot books of about seventy-five years ago also speak of oil in the vicinity of Cold Bay.

After long effort, Mr. Brown discovered the "lake of oil," as it was called. It proved to be a vast deposit of crude petroleum from five to ten feet deep, covering about eight acres of land at the upper end of which crude oil was flowing at a rate of about fifty gallons a day. Having no natural outlet, the heavy crude petroleum is left, after the lighter part of the oil passes off by evaporation. Exploring the vicinity, the party found that the surrounding country abounds in oil springs, as crude oil was oozing from the earth in more than twenty other places, though none were marked by such large deposits of petroleum residue as the first. Some of the smaller springs were found within a radius of a few hundred yards from the one first discovered, but others were more than three miles away. The country in the vicinity of the oil springs is easy of access. An excellent sheltered harbor for sea-going vessels is afforded by Cold Bay, near which the oil is located. These features, together with the fact that the locality receives the full benefit of the warm Japan current, insuring an extraordinarily warm climate for such a latitude, add to the feasibility of the oil fields being worked with success.

The surrounding country, Mr. Brown learned, is composed of stratified sandstone, of that particular kind which occurs where the richest oil deposits are buried. There is proof on the shores of the bay that this sandstone is at least 5,000 feet deep, and every probability that it extends to a depth of 20,000 feet. The conditions for a vast productive oil field could scarcely be better

Cold Bay is not far out of the track of vessels plying in the growing trade between our Northwest ports and the Orient, and is so conveniently located that Seattle shipping companies are offering transportation facilities at lower rates to our Pacific Coast ports than shipping petroleum there from the Ohio or Pennsylvania fields costs. The distance from Seattle is about 1,000 miles. Were the oil fields being worked, there would be a very

considerable market in Alaska alone, where fuel is expensive, for use on river steamers. The feasibility of using petroleum as fuel on locomotives has already been demonstrated, and it may be employed for a like purpose in the boiler-rooms of vessels plying across the Pacific. On the whole, there is every reason to believe that Alaska oil is destined some day to play an important role in the industrial development of the great Northwest, if not of the whole country.

HOW A MAIL ORDER HOUSE DOES BUSINESS

THE manner in which the big Chicago mail order houses handle the immense volume of business which comes to them every morning is marvelous in system and dexterity. Forty thousand letters per day is a low average for the greatest of these institutions. Its clients write from all parts of the world, and unless the demand is for bulky machinery which is not in stock, shipment is made the day the order is received.

The mail order business is founded on "catalogues." These are bulky volumes, listing thousands of articles, representing all phases of human need and endeavor. Each item is numbered, described, illustrated and priced. In ordering, all that is necessary is to specify the requirements, stating catalogue numbers, and enclosing a money order for the cost. The house does the rest. There are hundreds of thousands of these catalogues out. This institution has two hundred girls fully employed sending to clients new editions and circulars and responding to applications for the original volume.

Forty thousand letters per day to be opened, entered, copied, sorted for individual departments—the mere handling of such a body of mail keeps a large force busy. The mail pouches are emptied on tables at which sit fifty girls. The letters are made up in bundles and opened in a machine, which grinds the edges off, a hundred at a time. Inquiries and complaints are sent to their several departments, and orders are hurried to the entry office. At separate tables the registered mail is dealt with, the pouches being opened by a representative of the post-office, and checked by a batch of receiving clerks who use adding machines to compute the totals.

The entry office is an important link in the system. Here the orders are first transferred to regular blanks and duplicates made on hydrostatic presses. These sheets are passed on to another force, which segregates the items and apportions them to the various departments of the institution. For each department a ticket is made out detailing the goods required and the number of the compartment in the shipping-room to which they shall be sent. Another group of clerks is engaged at the same time routing the order, specifying thereon the cheapest, quickest and most advantageous way which it can be shipped to the purchaser. The most important of the mail order houses uses 22,000 of these tickets a day. They represent the most various requirements, for the catalogue covers the whole range of human needs and activities. All important familiar articles and utensils are furnished from stock, but bulky machinery and furniture is shipped directly from the factory.

The preliminaries having been completed, it remains to fill the order. Its destination is a numbered compartment in the shipping office. There the various items are assembled. Transmission of small freights from floor to floor is made by means of an endless carrier. On these carriers as they pass at a rapid gait the goods are loaded, and at the proper place are taken out. When the order is completed and checked, the merchandise is hurried to the packers' table, where, with extraordinary rapidity and precision, it is baled, and sent on to be labeled, and shipped according to direction.

There are the bulky packages. In another division of the shipping office is where mail and express packages are dispatched to their innumerable destinations. A corps of young men wrap and label the parcels as they come in. Then another gang weigh them on Government scales, marking on each the necessary amount of postage. A third set affixes stamps. All this is done under the vigilant eye of a post-office inspector, whose presence allows the use of pre-cancelled stamps, obviating re-handling in the general post-office. From the table the packages are thrown directly into the array of mail pouches which hang conveniently near. There is one for every State in the Union. As each is filled it is locked with the Government lock by the inspector and goes directly to the train. An average delivery from this office is 4,500 packages daily.

With similar precision the express packages are handled. Clerks prepare receipts as the parcels accumulate. Expressmen on the other side of a bench receive the packages, sign and return the receipts therefor, and send them to the wagons which await outside. Once across the bench those parcels are out of the custody of the house. A postal card notifies the purchaser that his goods have been

shipped. Watches and jewelry are sent out from a locked compartment. There is a common receiving department for all the express carriers, and two clerks seal the packages and receipt therefor. An impression of the volume of business transacted may be gathered from the fact that eighty clerks are engaged footing and extending express receipts.

In this institution the shipping department occupied three floors, which are covered from morning to night with an extraordinary array of merchandise. It is a scene of intense activity, hurry and confusion, but there is order in the apparent chaos.

The records of all this big mail order house are sedulously kept. There is an entry for every customer who has ever done business with the institution. His order, the date, and the correspondence pertaining thereto, can be reviewed at a moment's notice. Thus a big business, accurate and active in its details, moves through the same arc day after day. And the rapidity with which these arcs have grown is enormous.

EFFICIENCY IN THE MANAGEMENT OF MEN

IN a factory where 1,500 men work, their labor union made an unreasonable demand of the owner. The next day a number of old men went to him and said: "We are sorry that the union did this, and we want you to know that we were not at the meeting."

The owner replied: "Then you are to blame for it. You belong to the union properly; and it is your duty to attend its meetings. If all the best men had attended the meeting, the action of the union would have been wiser. Any demand that all the men in the shop make after careful deliberation is likely to be a reasonable demand."

Then he went on: "Labor unions sometimes have bad government for the same reason that cities have it—the best men do not vote. To be of use the union should comprise the best men, and they should attend its meetings and direct its conduct."

Such an incident as this tells its own story and carries its own moral. The more you think of it, the wiser the owner's conduct seems. He has never had a strike.

AN EMERGENCY ISSUE

FOR the last issue of a certain magazine in August, the managing editor had most of the work to do himself, as three of his staff were away on vacation and two were out of the city on assignments. The journal on this occasion was to contain about forty thousand words. At five fifteen P. M., Tuesday evening—all the copy was to be in the printer's hand by six o'clock—the editor handed the roll of copy to the office boy, with instructions to get it to the printer's office, about eight blocks away, as quickly as possible. The office boy, who was trained to the important errand, darted away. The editor busied himself in cleaning up his desk and getting ready to go home, when he was interrupted by the return of the office boy on a stretcher. He had been knocked down by an express wagon, his leg broken, and the precious copy lost.

The boy was dispatched to the hospital, and a hurried search failing to locate the missing copy, the tired managing editor set about rewriting the lost forty thousand words of copy. Telephone messages brought back the stenographers and one of the staff. The former were set to work re-transcribing their notes of that week's copy. The one available staff man was told to rewrite the work he had prepared as well as his memory allowed. Three temporary stenographers were engaged, some of whom were set to copying for the printer the leading article, of which there luckily remained an almost illegible pencil copy.

The editor himself sat down to his typewriter and wrote almost without stopping his two thousand words of editorial matter—no light work at any time, but doubly hard after a day's work—corrected it, and then took up the sheets of leading matter as they came from the typewriters and corrected them.

Much that was lost could not be replaced. In the finally completed issue a number of illustrations were run with only the most meagre amount of explanatory text, but the most important "stories" were saved. The lone staff man, his rewriting done, managed to turn out what he called "a cooked-over hash of matter dead a week"—a phrase as eloquent journalistically as it is disagreeable gastronomically—and the editor, after giving orders to "run two blue pencils down everything" (double-lead), went over the torn exchanges on the floor and out of what the morning's verdict had termed useless secured a thousand words of reprint.

At half past six Wednesday morning the stenographers were told to go home and sleep until they woke up, the "staff" was dismissed to his supper and break[illegible] one, and the editor went to the pr[illegible] carrying the necessary copy to fi[illegible] thousand words of space. This c[illegible] been created in twelve hours.

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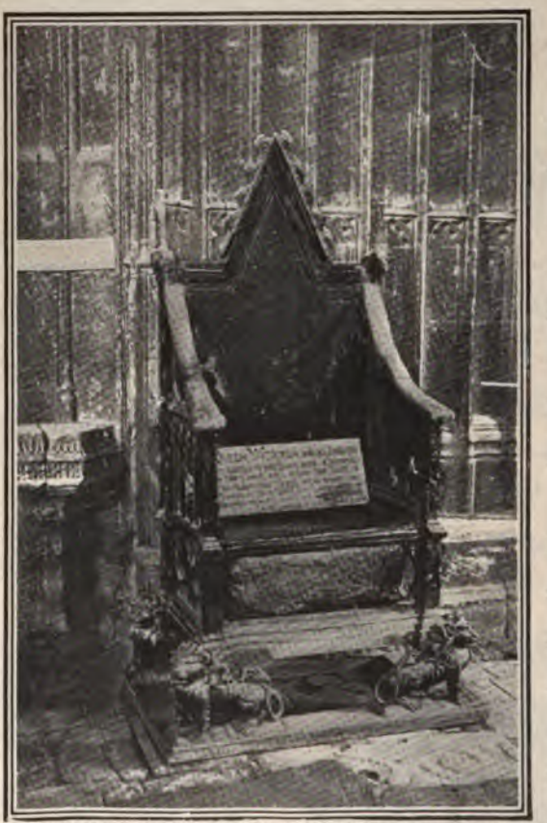

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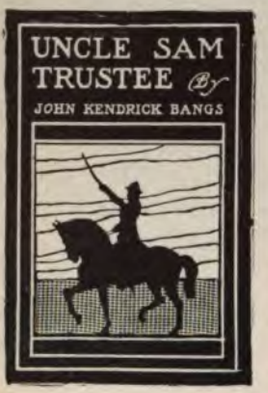

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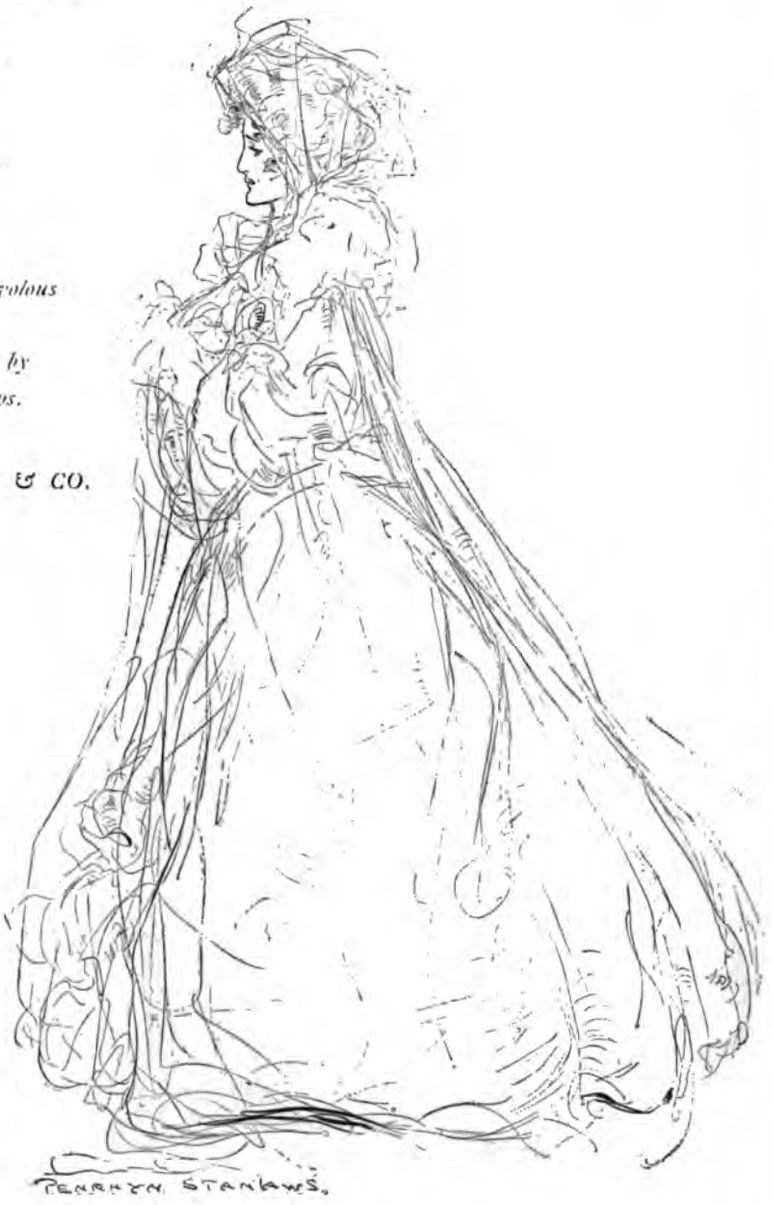

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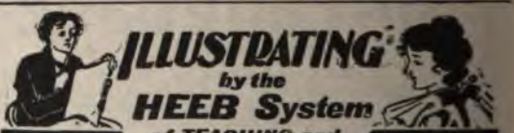

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THE U. S. TORPEDO-BOAT DESTROYER *MACDONOUGH*
Speeding at 27 knots an hour. Designed and built at the Fore River Works

GROWTH OF A GREAT SHIPYARD

BY

HERBERT S. HOUSTON

THE Dutch Admiral, Van Tromp, sailing the English Channel with a broom at his masthead typifies the awakening hope of victory that is beginning to stir American ship-building. To be sure the broom is not as large as it will be, and it is not being waved in a very menacing way, but it is there and every straw in it is bright colored and tough. If the day is still far off when this country's merchant marine will sweep the shipping of other nations into secondary places there are many thoughtful men who believe they can see its dawn.

Some of the signs of that dawn beginning to streak the sky are not only interesting but deeply significant. Doubtless the brightest sign is the newly awakened love of the sea that has swept over the country from coast to coast since a certain morning in May, 1898. Whatever else Dewey's guns may have meant—and a very babel of confused meanings has been read into them—one thing they clearly did mean and have made, is a new navy. People in Missouri as well as in Maine have been glad to see vast sums appropriated for building ships. The marvelous result of this new enthusiasm for the sea, that has accompanied the quick expansion of America into a World Power, has been the adoption of plans that will make our naval strength second only to that of England. But surprising even as is this result it seems small when one considers the sentiment and support favoring the ship subsidy that have come from the Middle and Western States. A few years ago to have so much as predicted such a change in sentiment would have been to invite ridicule.

From the Navy number "Scientific American," December 14, 1901

THE BATTLESHIP *NEW JERSEY* (AND *RHODE ISLAND*)

15,000 tons displacement, now under construction at Fore River. The Torpedo-Boat Destroyer *Lawrence* in the foreground

THE WORLD'S WORK ADVERTISER

There is, of course, a sincere difference of opinion as to how this sentiment can be most wisely directed toward the upbuilding of the merchant marine, but there is no difference of opinion as to the existence of the sentiment and as to its great strength. So strong is it, in fact, that it has become an irresistible determination to see this country a great maritime power Americans believe that Emperor William was right when, at the opening of the Kiel Canal, he called the sea "the eternal highway of commerce"; and they want to see that highway covered with ships bearing their flag.

If other signs were needed that Van Tromp's broom is crossing the sea, than the actual building of the new navy and the broad sentiment favoring merchant ships of our own, they could be found in the rapid growth of such shipyards as the one at Quincy, Mass. That growth accurately measures the development of the maritime spirit in America and is, therefore, interesting on both its commercial and patriotic sides.

I

BEGINNING OF A GREAT INDUSTRY

Eighteen years ago at Weymouth Landing, near Quincy, six men began to build small marine engines. They were good engines and the craft fitted with them gained the name of being speedy and safe. The acorn was a little one, but it grew. In time small launches were built, as well as the engines. Then yachts of fair size, as the business slowly expanded. But this beginning of the Fore River Engine Company and its progress were typical of the period.

THE SITE OF THE FORE RIVER YARDS
This photograph was taken April, 1900

There was no provision for building ships for there was no demand for them. The maritime spirit that had been strong in the early days of the country seemed fast asleep. The yards in Maine from which so many stout vessels had gone out to sail every sea were in sluggish half-idleness; John Roach was building a ship now and then at Chester; the Cramps were constructing the few war vessels that Congress could be cajoled into paying for; the country, in fact, was still in the paralysis of the shipping interest that followed the Civil War. The merchant marine of the earlier days had been almost wholly destroyed by the *Alabama* and other privateers and the maritime spirit was so low that no effort was made to replace it. These were days when the great States west of the Alleghanies held the balance of power and the sea was something so remote and

A PANORAMIC PHOTOGRAPH

This picture was taken less than two years later than the photograph on the previous page

their own development so close at hand that they gave little thought or care to building ships. But even in these leaden days of naval eclipse there was as much activity at the little shipyard at Weymouth Landing as the times would warrant. It was then, as now, a true expression and measure of the maritime spirit. There was, however, in its management a far-sightedness that caught a glimpse of a sail on more prosperous seas. Something better was ahead and preparation was made for it. With each year the skill of workmen was increasing and the nucleus was forming for a strong organization. The Fore River Engine Company was getting ready for the day when the country would look to the sea.

PLATE-BENDING MACHINE

This makes the skin of a ship smooth

II

AMERICA AGLOW WITH THE MARITIME SPIRIT

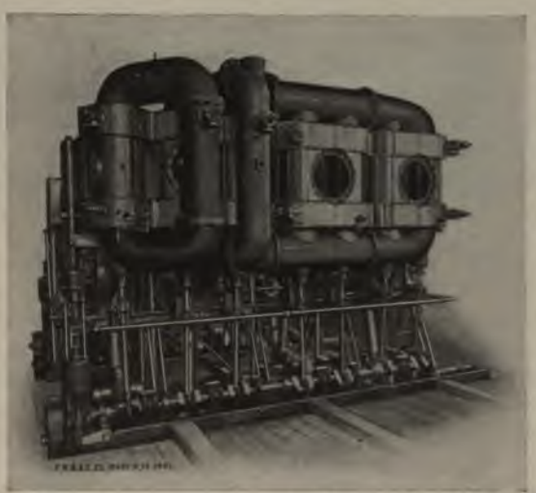
That day broke one morning without a cloud. It set the country's blood tingling and refreshed its memory. Were we not of the line of Paul Jones and Perry, Decatur and Lawrence, of Farragut and Porter, of the hardy Yankee sailors that had borne the flag to every sea and built up a merchant marine that carried nine -tenths of our commerce? Assuredly we were and proud of it. With the pride, though, was no little shame that we had so long forgotten it. But true to the American spirit, once aroused, we started in with vim to make up for lost time.

The change at Fore River illustrates in a striking way how fast we can travel when we feel that we are overdue. What has happened there since the country turned again to the sea has been a bodying forth of the awakened maritime spirit. By a happy augury the first contract from the Government to the builders at Weymouth Landing was for a Light Ship. That was only a little over four years ago but in that short span of time two torpedo boat destroyers, the *Macdonough* and *Lawrence*, have been built, the protected cruiser, *Des Moines*, has been nearly completed and two battle ships of the first class, the *Rhode Island* and the *New Jersey*, are under way. All this for the Government, and there has been built besides the largest sailing vessel in the world,

'HE FORE RIVER YARDS

Thirty-nine buildings are here erected, all of which are so planned that they may be doubled in size without interference

the first seven-masted schooner. This big steel vessel will be ready for launching about the time this magazine comes from the press. The contracts for these Government vessels, with other work now on hand, make a total of nearly $9,000,000. Two years ago the company had grown to the point where immediate expansion became a necessity and a new site for the yards was bought at the mouth of the Fore River, in Quincy. On these ninety acres that had been meadow and field and orchard for nearly three centuries there has been wrought a transformation that makes a real romance of industry. And it has been done so quickly that the old elms in Quincy have barely had the time needed to bring them twice into leaf. No wonder there is a rubbing of the eyes at the meaning of it all. But the meaning is as plain as a pike staff. It is, simply, that the whole country has made up its mind to have a navy of the first class and a merchant marine big enough to carry American products in American bottoms.



ENGINES FOR TORPEDO-BOAT DESTROYER *LAWRENCE*

Designed and built at Fore River

As far as this shipyard at Quincy is concerned it has been merely striving to the utmost to do its part of what the country wanted done. It hasn't been building up a business, but building up *to* a business that was waiting for it. Not waiting, either, but growing so fast that to catch up to it has seemed impossible. To forge the American spirit into ships is a mighty task. But at Fore River Vulcan has been pounding away with two-hundred-and fifty-ton hammers driven by steam and he has much to show for his work. So much, in truth, that even the most strenuous American, bubbling over with a buoyant optimism, will confess to some feeling of surprise. The result as seen today represents a double task; for while the great shipyards were being built, great

THE OLD FORE RIVER WORKS
The beginnings of a great shipyard

ships have been under construction at the same time. In two years nearly eleven acres have been put under roof and a million and a half dollars have been spent in buildings and equipment; besides, work, under contract, representing several millions, has been done.

III

A TWENTIETH CENTURY SHIPYARD

Today in all America there is not a more interesting or significant industrial plant than this one on the water front at old Quincy. To go over it is to see not only a twentieth century shipyard so modern that it seems almost to anticipate the future—a sight extremely interesting—but it is to see also a great maritime country struggling for its lost place on the seas—a sight gloriously significant. One cannot help seeing behind the furnaces and forgings and the great maze of activity, as Schiller saw behind the casting of the bell, the deep meaning of it all —ships of American build and registry bearing the American flag on every ocean. If one who cannot visit Quincy would feel the thrill of that meaning he should read the pages in Riis's "Making of an American," where he tells how, foreign born though he is, he was made to know his citizenship when, as he lay sick in his old home in Denmark, he saw an American flag snapping at a ship's masthead.

But to a ship in a foreign port from steel ingots in America seems a long way, and it is, but every stage of it to the ship's completion can be seen at Fore River. As one goes into the yards through gates, where the exact moment of entering of each of the twelve hundred workmen is registered, the forge is just ahead. Here the steel for every part of the ship that may be building is hammered into shape. This is not a village smithy, but a building two hundred feet long and in it blows are struck heavier than the world ever dreamed of before. One great hammer with the fist of Thor strikes a two-hundred-and-fifty-ton blow. But it can be manipulated with such nice precision and delicacy that it can give a blow as light as a finger-tap. Near it is a cavernous furnace where great ingots are brought to white heat. The surplus heat from the furnace runs the boilers which give steam for the hammers. This economy of power marks every process throughout the yards—time is saved, labor is saved, power is saved, material is saved—in fact, so complete has the utilization of

thing become that there is virtually aste in the entire plant. The plant has been so arranged that every moment le is saved. Every building comes in essive sequence so that its part of the is the part that needs next to be done. her words, the work is done while each of the ship is in transit from the forge carpenter shop, as the case may be, it is first handled, to the ship- where it finds just the place it made to fit. The great saving in portation and handling, which such gement secures, is apparent. This of the large economies which was made le by building up a great modern plant the beginning after a scientific plan d by naval architects of the highest rity. In keeping with this plan, the ling tower, where the forgings are red and hardened, is placed right next forge. The tempered forgings go next e machine shop to be planed and thed down and burnished. There may mething misleading in the word "shop," for it has so many diminutive associations to the average mind. But this machine shop at Fore River is 400 feet long and 118 feet wide. Its tools would surprise Gulliver even after his travels among the Brobdignagians. For example, one of the giant lathes is 115 feet long, one of the largest in the world. It will bore a hole in a fifty-foot shaft from end to end without reversing.

THE U. S. CRUISER *DES MOINES*
Almost ready to be launched at Fore River

And things more surprising even than bigness are the cleanliness and comparative quietness. One looks about for buzzing wheels and screeching belts, some visible evidences of the enormous power needed for the work that is being done. Instead of seeing them there is pointed out an electric motor connected with every machine. Power is turned on when needed; and turned off, instantly, when not needed; so there is no waste. Economy here, as everywhere. The other power that one finds on tap in every part of the plant is compressed air. It is piped around like water. Even a moderately modern visitor is apt to start a bit when he sees what looks to be some ordinary garden

AS THE LARGEST SAILING VESSEL EVER BUILT WILL LOOK WHEN COMPLETED
To be launched this month from the Fore River Yards

hose, attached to a hydrant, driving a chisel through armor plate. This is not as surprising as it would have been though, had he not already seen in the steel mill what looked like a lawn mower being moved about over steel plates, drilling holes in them, with its electric motor power, as if they had been pine boards. Power is taken to the work and not work to the power. Electricity and compressed air, with their facility of transmission, have an advantage so great over stationary steam power that they are working a revolution in industry. At Fore River they were pressed into service at the beginning. So, too, was every other modern aid to efficiency and economy. Any one who has his dates mixed only needs to take a hurried turn through the power house, the ship tool shop, the great mold loft and the many other buildings to be convinced that this is the twentieth century.

IV

SOME OF THE WAR SHIPS

But what are the ships for which all this modern equipment is intended? A process is often interesting, but never as much so as its result. This is particularly true when that result is a part of America's new navy. Two additions to that navy, the torpedo boat destroyers, *Lawrence* and *Macdonough*, are already completed at Fore River and nearly ready for the Government tests. These vessels meet every requirement of one's imagination as to the "long, low, rakish craft" that one never cares to meet with on the high seas. Anchored at the dock at the shipyard they look like a couple of particularly savage bull dogs in the leash. The Government contract for these destroyers calls for speed of twenty-seven knots, but each of them has already attained a speed in excess of this and it is very probable that they have not reached the limit of their swiftness.

Another naval vessel nearing completion is the protected cruiser, *Des Moines*, which will be ready for launching this month of May.

The work for the navy at Fore River has been of a progressive sort: First, the light ship, then the torpedo boat destroyers, next the cruiser, and now the great battleships *New Jersey* and *Rhode Island*, each of 15,000 tons. The frames of these great vessels are just being put in place. But this does not mean that they are just being begun, for they have been under construction for over a year. The drawings, the making and assembling of the various parts of the vessels and all those essentially important preliminary stages go on for months before a ship actually begins to take form. When the work of actually putting the parts together does begin, it rises beneath a great steel structure that bears the name of Ship House. It is interesting to note that this house, in which the ship adds cubit by cubit to its stature, like the great home where its life is to be spent, has no other roof than the broad

dome of heaven. There seems to be something peculiarly suggestive and fitting in this Spartan rigor with which a warlike child of the sea is treated as it grows into a big steel battleship.

In this big ship house the largest sailing vessel ever built from the days of the Phoenicians until now is nearing completion. It is not only the largest sailing vessel ever constructed, but it is likewise the first seven-master that was ever built. It is of steel, and the masts are of steel, and in its cavernous hold a cargo of 7,000 tons can be carried. It is 403 feet over all, with a double bottom so that water can be used, when needed for ballast. While the winds will supply the power, it is interesting to mention that steam will be used in raising and shifting the sails; this additional power will make it possible to reduce the crew to a total of eighteen.

V

PLANS FOR GREATER GROWTH

But as the shipyard at Quincy today seems a marvelous development from the small beginning at Weymouth Landing yesterday, so this shipyard of today will seem small compared with that of tomorrow. The meridian has clearly not been reached in this Company's progress. No more conclusive evidence of that could be desired than that the development of the maritime spirit in America has not reached its highest point. This shipyard, as it has been pointed out, is a manifest expression and measure of that maritime spirit, and it must of necessity, therefore, grow just as rapidly as that spirit grows. No man in America today is so blind that he cannot foresee his country's ships on every ocean. No one who gives

THE MAKING OF A STEEL SHIP

At Fore River. The skeleton frame-work of the seven-masted schooner. This cavernous hold will have a capacity of 7,000 tons

any study to this great plant at Fore River will doubt that, here, many of these ships will be built.

Plans are already matured that will enable the Company to meet the opportunity which actually presses upon it today. Among these plans is one for a great dry dock, the designs for which have already been made by Messrs. Clark & Stanchfield, the English designers of the dock at Havana and also for the dock recently located at Algiers near New Orleans. This dock will be operated in keeping with the Fore River idea to take advantage of the economy and efficiency of power transmission, from the power house on shore. It will cost nearly a half-million dollars.

Another improvement that is even now under way is the construction of a fitting-out wharf 1,200 feet in length and its equipment with a seventy-five ton folding jib electric crane. By this crane, working up and down the wharf, the heavy guns and every other fitting, regardless of its weight, can be lifted from the shore into the war ship alongside without the vessel moving a foot.

It is doubtless due to this progressive spirit at Fore River, this fixed purpose to see that every phase of its equipment attains to the highest point reached in modern development, that the Government paid a tribute to the shipyard which means even more than the contract it has given for building war ships. As is well known, it has been necessary for many years to send abroad (chiefly to the shipyards on the Clyde) the naval cadets of Annapolis whom the Government wishes to have receive the best possible training in naval architecture. Since this great modern shipyard has arisen at Quincy the Government has selected The Massachusetts Institute of Technology in Boston as the best possible school in which the cadets in naval architecture can complete their studies. These naval cadets spend a great deal of their time in practical work at the Fore River yards under the guidance of their eminent instructors, Professor Peabody and

A ROOM IN THE HOSPITAL HOUSE

Or "sick bay," provided for the immediate aid of injured employees by the Fore River Works management

William Hogaard, formerly of the navy.

VI

OPINION OF A NAVAL EXPERT

f the greatest authorities in the world l architecture recently made a very h investigation of this shipyard at iver, and his conclusions as to its nt and as to its future are extremely ng. He says:

question of a return upon the in- t in the ship-building industry is ly connected with the rebuilding merchant marine and the continued s to the navy. Congress is likely de a yearly sum for the latter pur- d the movement toward a ship sub- vidence of a great revival of merchant . The demands of the colonial service will certainly exert a strong influence in this direction. A number of new shipyards have sprung up along the Atlantic coast, and competition will be keener as time goes on, but there is no reason why The Fore River Company should not obtain their share of a growing business. They are well located, they have the shops and facilities for doing work economically. . . .

"The Fore River Company seems to be well organized, both at the head and in the sub-departments, where the men are intelligent and business-like. The fact that they have developed a small engine shop into a large shipyard is proof of the ability at the head. It is hardly necessary to add that the success of any shipyard, or in fact of any business, depends largely upon the men who are in charge and upon the proper coöperation of their subordinates. In this respect

THE FORGE SHOP

The steam hammer in the background is one of the two largest in the world

THE WORLD'S WORK ADVERTIRER

THE RESULT OF A COLLISION

The Isle of Kent. Made as good as new by the Fore River Ship and Engine Company in twenty-one days

The Fore River Company will doubtless have something to learn from experience in the new shops, but if all signs do not fail, they will be fully equal to their opportunities. I have great confidence in their success."

VII

HELPING TO BUILD THE NAVY

To improve the opportunity for profitable enlargement that is now within its grasp, The Fore River Ship and Engine Company requires larger funds. In the past two years it has expended on its new plant a million and a half dollars in cash. By adding another million dollars to the enlargement of the plant, it is believed that the earning capacity can be more than doubled. Contracts now in hand amount to $8,907,000 and the Company has tenders under consideration for additional work aggregating several million dollars. The earnings for the five months preceding January 1, 1902, were $101,574.36.

The Company has decided to make a popular public offering of 10,000 shares of its preferred stock. The plan, with a complete financial statement of the Company's condition, is contained in a prospectus; an illustrated booklet has also been prepared describing the plant in detail. All that any one who may be interested needs to do is to write to The Fore River Ship and Engine Company, the Weld Building, 176 Federal St., Boston, Mass.

THE PLATE YARD AT THE FORE RIVER WORKS

The electric crane in the foreground has a span of 150 feet (almost as wide as a city block) and runs along a track 800 feet in length. Here 15,000 to 20,000 tons of steel are stored

"ONE RUBS AGAINST ALL SORTS OF PEOPLE FROM ALL SORTS OF PLACES. THE JAM AT THE BROOKLYN BRIDGE"

THE NEW WARFARE ON INFECTION

IT may seem a daring fancy to think of a scientist as a soldier, but still it is a true one. Virchow has contended with hostile armies just as truly as did Von Moltke. The difference has been chiefly that in his case the foe has been an invisible one and that, instead of the Fatherland, he has sought to protect the lives of men and women everywhere. But it has been a warfare tense and unremitting during eighty strenuous years. Armies of bacilli (infinitesimally small—25,000 of them may be lodged on the point of a pin—but great in their capacity for evil), countless legions of germs he has contended with in earth and air and water. He and his co-workers in laboratories scattered over the world have been building up a new science of medicine.

A BACTERIOLOGICAL LABORATORY
Searching for disease germs

Every one nowadays knows that very many diseases are infectious. Germs bear them from one place to another. Medicine has been seeking sure ways to kill them, to disinfect. Sanitary science has been following progressive lines to remove conditions that produce the germs. But when all possible has been done by Virchow, by Koch, by Pasteur, by the great sanitary engineers, such as the lamented Colonel Waring, there are still germs and yet more germs. In this connection a striking example of the microbes' tenacity may be given: Of the 13,000 white-clad street cleaners employed by the City of New York, 346 were affected last year by the germs in the dust and refuse.

Collective effort may provide pure water and moderately-clean streets and improve general conditions to the utmost, but still much has to be left, of necessity, to the individual.

But what can the individual do? Clearly

there is no escape from meeting an invisible foe. One rubs up against all sorts of people from all sorts of places. The jam at the Brooklyn Bridge, or the crowded trolley car in Boston, Chicago or Philadelphia, brings one in contact with probable contagion continually. Since exposure is so inevitable, it is manifestly true that a disinfectant to be effective must be equally inevitable. It must be something that can become as unfailing and natural a part of life as the air we breathe, the water we drink, or the soap we wash with.

To provide such a disinfectant became a real human necessity as soon as the germ theory of disease was established. It is now believed by eminent physicians and bacteriologists that this disinfectant has been found in Lifebuoy Soap. The results of numerous tests with this soap on the bacilli of different diseases are extremely interesting. For example, Dr. Joseph McFarland, of Philadelphia, the great authority in bacteriology, says:

A STREET CLEANER OF NEW YORK
Three hundred and forty-six of these men were infected by bacteria last year

"In five per cent. aqueous solution of Lifebuoy Soap, we find that it destroys the micro-organisms of Typhoid Fever, Cholera and Diphtheria in about five minutes. The majority of non-sporulating micro-organisms, such as the

REFUSE FROM THE STREETS OF NEW YORK
Germ-bearing material ready to be carried to sea

cocci of suppuration and the ordinary bacteria of water are destroyed in from five to ten minutes."

In common, unscientific language, this means that by the simple use of this soap many of the ills that beset us on every side may be warded off effectively, and unless the individual seeks to ward them off, the community, with all the highly-organized forms of modern science at its command, will not be able to protect him. But it is interesting to trace the progress that has been made in the effort of cities to check and destroy disease.

The Health Department records of New York date back to 1795, when the city had a population of but 45,000, and those sheets, yellowed with age, bear the record of 715 deaths from Yellow Fever. Today, New York City has a total population of over three and one-half millions, but there has not been a case of "Yellow Jack" within its boundaries for many years. In all American cities contagious diseases show the same remarkable decrease. Smallpox no longer sweeps the towns of their people; Cholera, Typhus, all the dread scourges that depopulated whole communities in the days of our great-grandfathers are held in check or utterly annihilated. Superstition has given way to science. Sorcery and muttered charms have been succeeded by common sense and unceasing vigilance.

But when collective effort has done everything it can do, disease remains and infectious germs continue. There is a work of protection which the individual must provide for himself. The community can no more do it for him than it can breathe for him. It is here that the lifesaving work of Lifebuoy Soap comes in. It not only keeps one clean, but it gives a perfect armor against the invisible germs. It is like the bath of Achilles in the Styx, or the invisible shirt of mail which Richard, the Lion-Hearted, wore in the Crusades. The use of Lifebuoy Soap makes one practically proof against infection because its use destroys the causes of infection.

A refreshing, warm bath, with the comforting use of a cake of Lifebuoy Soap, after a long ride in a car crowded with all sorts of humanity, will utterly destroy any threatening germs that may have been floating in air or lurking on clothing.

If the people of the United States made universal use of Lifebuoy Soap, much of the enormous expenditures of money spent to maintain the health departments might be made doubly valuable. By the use of Lifebuoy Soap every man, woman and child becomes their own health department. There are six ounces of prevention contained in a five-cent cake of Lifebuoy Soap, and prevention is proverbially better than cure. The so-called inevitable children's diseases are preventable if Lifebuoy Soap is constantly used.

Cleanliness is a virtue; it is also a luxury when Lifebuoy Soap is used. Soap pure and simple is the basis of this wonderful article; the disinfecting ingredients are added without impairing the cleansing quality, but rather add to it.

Much property is destroyed, and still more

"MOST OF US HAVE TO TRAVEL IN CROWDED STREET CARS WITH UNSAVORY NEIGHBORS EVERY DAY"

is damaged by the use of disinfectants; the fumes of certain germ killers tarnish and stain irrevocably, and almost all of them affect the color of fabrics. Lifebuoy Soap, on the contrary, being pure soap, cleanses an article washed with it of dirt and kills the germs as well. Not a thread of lace or the most delicate skin can be injured by the use of this soap. Lifebuoy Soap has a cleansing quality that may be likened to a Turkish bath; the user has the same feeling of thorough cleanness, that amounts almost to a sense of exceptional virtue, with the added assurance that he is armed against his invisible foes, the microbes.

The subjugation of disease is a much more costly proceeding than the conquering of a people. Actual warfare lasts but a few years at the most, while the fight against the legions of diseases is continuous year after year, night and day. New York City alone spends several million dollars a year for her health department; many thousands of men and women are employed constantly, and search is being conducted continually at the bacteriological department in a building set aside for that purpose, for germs that are likely to prove epidemic, and for the preparation of destroying agents. Those men and women are truly life-savers.

In every city, large or small, a health department is maintained to protect the people from the ravages of disease. City, county, state and nation, each has its own health officers and organization—separate, but allied, forming a solid front to the great enemy, disease.

IN THE GHETTO, WHERE THE HEALTH DEPARTMENT MAKES ITS GREATEST FIGHT

The work of the health departments and health boards is largely educational, for no matter how careful, how watchful and exacting the health official may be, if the individual is not careful and does not observe the laws of sanitation disease will surely creep in.

What Lifebuoy Soap has done is to make easy the observance of these laws of sanitation. When Buckle was writing his "History of Civilization" he might have found an apt definition for the civilized man as the one who used soap. Of course, every one today uses soap. It has become as much a part of the natural order as breathing or drinking or sleeping. If the soap be Lifebuoy, one gains not only cleanliness but immunity from germ infection.

LIFEBUOY SOAP

THIS WONDERFUL CLEANSER AND PURIFIER, USED ANYWHERE, ENSURES NOT ONLY THOROUGH CLEANLINESS, BUT PERFECT PURITY AND FREEDOM FROM INFECTION. LIFEBUOY SOAP IS THE ENEMY OF DIRT AND DISEASE AND THE FRIEND OF CLEANLINESS AND HEALTH. IT

CLEANS AND PURIFIES

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If not perfectly satisfactory. If your dealer cannot supply you, we will send trial carton of two cakes of Lifebuoy Soap by mail for 10 cents. Costs us 13 cents alone for postage, hence soap is free. Valuable 24-page booklet free for the asking. Mention this publication.

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And remember that Schlitz beer costs just the same as common beer.

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Ask for the brewery bottling.

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2

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3

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4

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5

We age it for months, until it is well fermented. It is the "green beer" that causes biliousness.

6

Every drop of Schlitz beer is thoroughly filtered.

7

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The Pianola

Musical intuition is inborn. Many students of the pianoforte perfect themselves in technique and fail to make their mark for lack of intuition.

It is called musical genius.

Many possess this wonderful power to a marked degree who do not know one note from another. They can criticise music, they have the temperament and they know how music should be rendered, but they can not express their feeling and taste *because they can not use their fingers.*

The Pianola, with its sixty-five felt-covered fingers, enables every one to play the piano, for it faithfully and correctly plays every note, leaving the expression and the tempo to the control of the operator.

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Every inch of the paper music-roll is marked in plain view with a graded expression-line to aid the performer, and numbers corresponding with a disc back of the tempo-lever indicate the correct time.

There is nothing complicated or confusing about the Pianola — there are no useless push-buttons, stops, and cranks to confuse the operator — the whole effect is produced by the levers which are explained on every piece of music as it passes before you in playing.

The Pianola looks like a small cabinet. It is not attached to the piano in any way, but is simply rolled to the instrument when its use is desired.

The price of the Pianola is $250.

If you have not heard the piano played with the assistance of the Pianola, it may be difficult for you to understand its wonderful success. Certainly you are robbing yourself of an opportunity to judge of an instrument which may prove of inestimable value to you. Visitors welcome. Catalogue F, fully illustrated, upon request.

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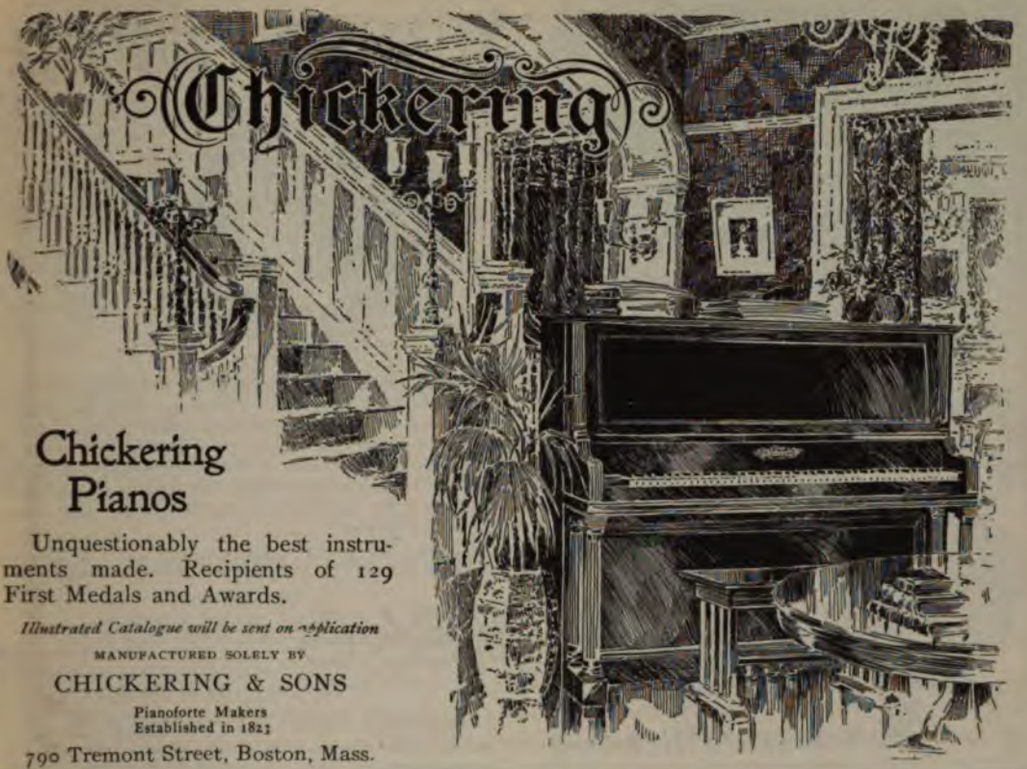

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Patent Elastic Felt

Mattress

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It stimulates the entire system to healthy action. The two million sweat glands of the body demand daily washing. If they aren't cleansed you let down the bars for disease.

Gorrien's Portable Shower Bath is the practical shower bath for athletes, salesmen, tourists, campers. It showers the whole body at once. Does not wet the head.

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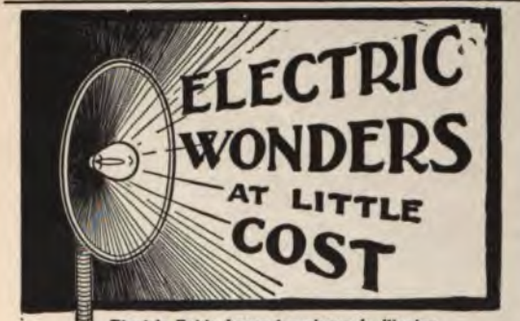

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The primary cause of poor teeth and therefore poor health is the general use of white flour. In milling the mineral properties of the wheat that make teeth have been removed.

Your reason tells you to change your diet.

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The law is: "Naturally organized foods make possible natural conditions; there is no other way." In white flour the law is broken because a part of what nature has organized in the wheat has been removed, and in soft, cooked food the law has been broken by robbing the teeth of their natural uses.

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Another cause for poor teeth and therefore poor health is the use of soft cooked cereals. Being soft they are swallowed without mastication. The vigorous use of the teeth is a necessary exercise and the only way to mix saliva with the food.

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A Natural Water Successfully Employed by Eminent Medical Authorities, in Nervous Exhaustion, Disordered Digestion, and Uric Acid Troubles.

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ESKAY'S

FOOD

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"When only several days old we were compelled to put our older boy on artificial diet, and used a popular infant food for ten days, the child losing flesh and strength constantly. I then asked the nurse to try ESKAY'S FOOD. Improvement was immediate, the food being at once retained, which was not the case before. In spite of the intense heat of last summer he had no colic or any of the usual infant's complaints. The second boy was put on ESKAY'S FOOD at once, and has always been strong and well. Samuel, four years old, weighs 36 pounds; Donald, two years old, weighs 32 pounds, and you could not find healthier, hardier boys."

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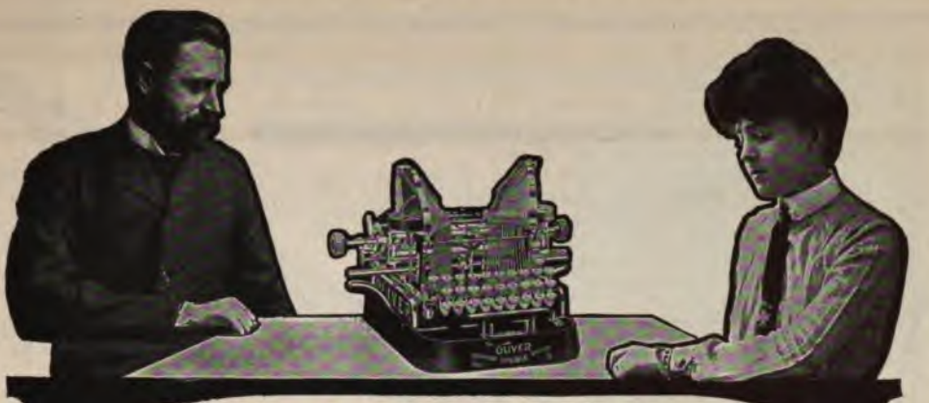

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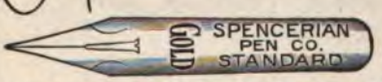

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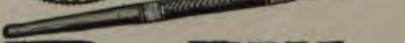

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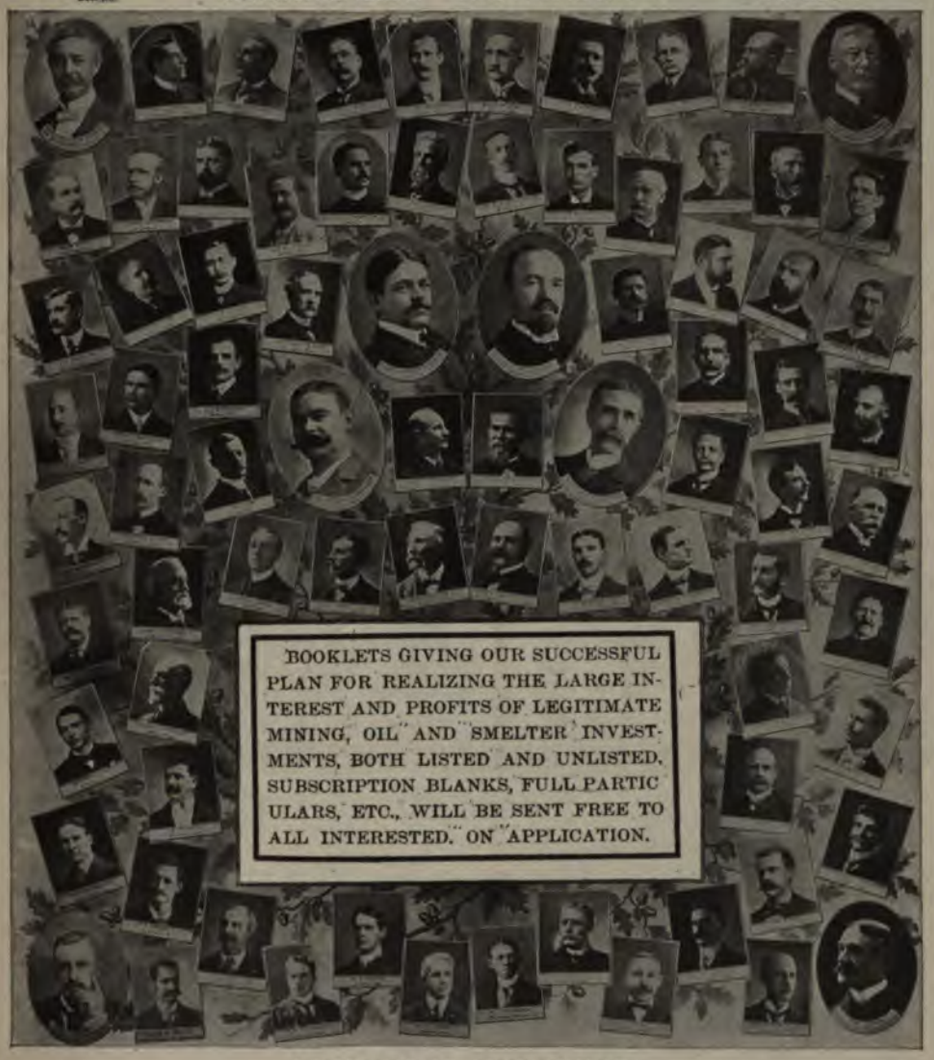
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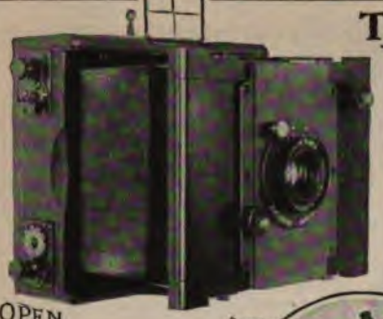

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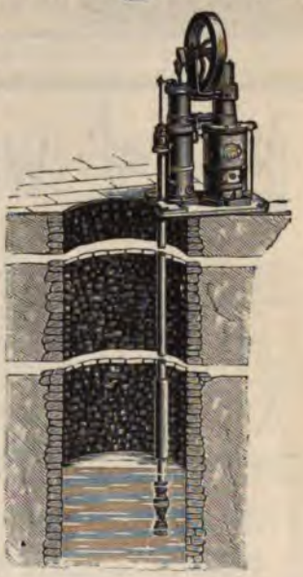

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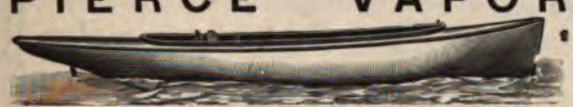

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For Summer

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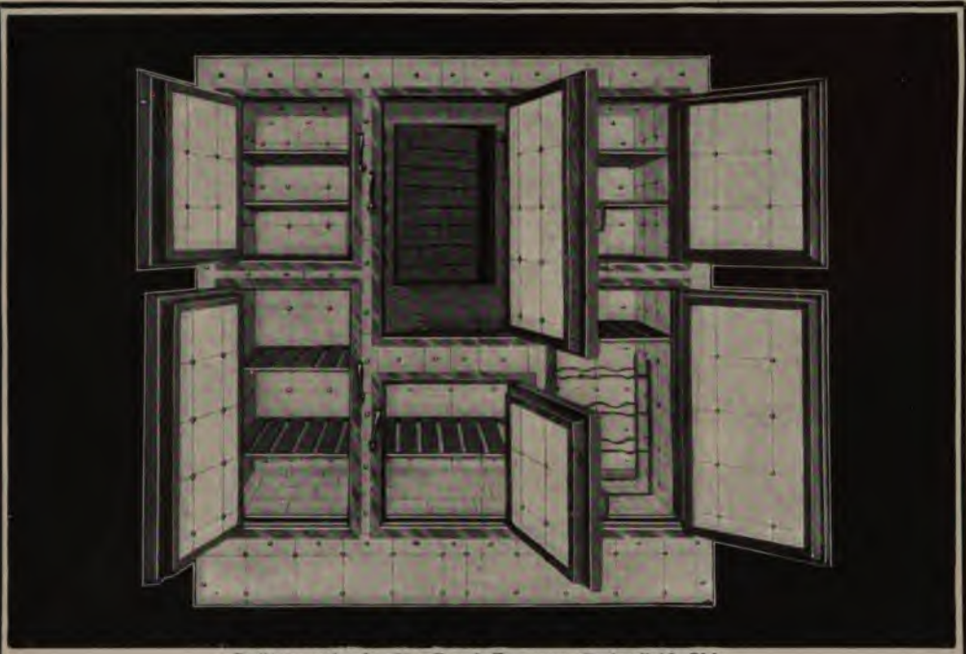

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